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ABSTRACT

The book consists of the major background documents which the Organisation for Economic Co-operation and Development (OECD) used in 1970 to examine the Japanese educational policy at all school levels. The reports, which form the major part of the book, were prepared by the Planning and Research Department of the Ministry of Education of Japan. They use extensive historical data and current surveys and analyses as a basis for examining three aspects of Japanese educational policy: 1) the national and social demand for school education and educational opportunities; 2) the content, pedagogical methods, and other qualitative concerns of Japanese education; and 3) the distribution of expenditure on education. Included in the annexes are policy documents of the Central Council for Education of Japan entitled "The Master Plans for the Reform of Primary and Secondary Education and of Higher Education." (Author/RM)

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EDUCATIONAL POLICY AND PLANNING

SO 006 774

DIRECTORATE FOR SCIENTIFIC AFFAIRS

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

PARIS 1973

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INTRODUCTION

This book brings together the major background documents for the OECD examination of educational policy in Japan conducted in 1970.

The main body of this book comprises reports prepared by the Planning and Research Department of the Ministry of Education of Japan, and is based upon a continuing series of studies on the development of the Japanese education system by the Japanese planning authorities. These reports also served as a basis for the deliberations of the Central Council for Education of Japan, then conducting a major programme of policy development. They draw upon extensive historical data as well as on current surveys and analyses as a basis for examining three general aspects of policy which underlie the future development of Japanese education.

The first aspect of the development of Japanese education examined is its response to national and social demand, both in terms of demand by the economy and in terms of social group participation in education. Data with respect to the equality of educational opportunity is also treated.

The second aspect of Japanese educational development involves an examination of the content, pedagogical methods and other internal qualitative concerns in the delivery of education to the Japanese people. Here the investigation relies upon efforts to recognise the subjective reactions of Japanese people to the education offered to them up to this point; and furthermore, to take into consideration both scientific and popular opinion with respect to the educational process and human development needs.

In a sense these first two sections involve an assessment of Japanese education in terms of its quantitative response to demand and in terms of the qualitative satisfaction of this demand. The third aspect studied involves the question of how this educational service is paid for, the adequacy of financial resources made available, and who provides these resources, at present and in the future.

The second major part of this book presents the general conclusions or recommendations of the Central Council for Education of Japan, entitled: "The Master Plans for the Reform of Primary and Secondary Education and of Higher Education". These policy documents were submitted to the government and were subjected to further discussion in Japan both in the light of the data presented, and the OECD review process itself.

The report of the OECD examination of educational policy in Japan is contained in a separate volume(1) consisting of the OECD examiners report and questions, the account of the Confrontation Meeting, and a series of essays prepared for this review.

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(1) Reviews of National Policies for Education - Japan, OECD, Paris, 1972.

PART ONE

THE CONCLUSIONS AND RECOMMENDATIONS OF THE CENTRAL COUNCIL FOR EDUCATION

Summarised below are the results of investigations made into the Japanese educational system by Sub-Committees XXI, XXII and XXIII of the Central Council for Education. These findings are elaborated more fully in Part Two. Presented also, in outline, are the problems proposed by the Council as worthy of future study. These include, in particular, the effect of educational inputs upon educational outputs, a subject not thoroughly examined in previous enquiries.

Chapter I

CENTRAL ISSUES IN SCHOOL EDUCATION

I. National and Social Demand for School Education and Equality of Educational Opportunity

From the beginning of the Meiji Era, and starting at the primary level, school education in this country has been diffused and developed gradually. It has had to overcome many difficulties but, thanks to enthusiastic popular support and exceptional dedication on the part of all those individuals involved, it has advanced steadily through the years. A general survey of its development shows that it has grown apace with other socio-economic variables.

The expansion of upper secondary schools and universities during the post-war years, encouraged by such factors as the extension of the compulsory education period, the establishment of a single-track school system, the "baby boom", and so forth, continued the consistently upward trend of educational development since the Meiji Era. There are, nevertheless, problems still to be resolved on a qualitative level. In recent years, demand for education has grown continuously. The tendency of society to make a superficial evaluation of a person on the basis of his nominal school background is gradually changing, but school education is generally regarded as useful both for acquiring social status as well as for developing one's abilities.

Today many adults also seek opportunities for further study, a fact which suggests that our rapidly changing society calls for the institution of a new concept of "permanent education". In addition, society's demand for educated manpower has expanded along with the rapid economic development of recent years. This has made the shortage of a qualified labour force only more apparent. Scientific, technological and social progress on the present day scale calls for an ever-increasing qualitative level of manpower.

Given the circumstances, school graduates have been assimilated into employment fairly smoothly on the whole but this does not preclude potential disparities between their qualifications and the jobs they actually hold. We are still faced with the problem of combining an appropriate vocational training with an education qualitatively and culturally edifying.

In conclusion, the growing demand for education accompanying the rising income levels of the people is held principally accountable for the quantitative propagation of education. There is now a real need, however, to co-ordinate the content and the qualitative aspects of education, taking into consideration society's demand for educated manpower and its need of cultural standards as well.

Major Problems for Further Study

1) In planning future programmes for the diffusion and enrichment of education, the following matters require perspective and a definition of the policy goals involved:

a) Advancement of the quantity and quality of popular demand for education in keeping with other socio-economic factors.

b) Socio-economic demands on the standard and contents of education prompted by the growth of industry, science and culture.

c) Social, economic and cultural effects that might result from the diffusion of education and the improvement of educational standards.

2) So that individuals may acquire the knowledge, skill and social adaptability necessary for the rapid advancement of society, research should be carried out into the possibilities of providing people of all ages, professions and social levels with educational opportunities throughout their lives. This we would call "permanent education". In this context a reappraisal of the roles and limits of school education, as well as of its relationship with social education and home education, is called for.

3) An examination of measures aiming at the equalisation of opportunity for higher education is necessary; at present, students are often influenced in their decisions for or against higher education by their economic situation and family background, rather than by their scholastic standing in their upper secondary schools.

4) The current tendency among leading employers to recruit employees only from graduates of specific universities obstructs the ideal of equal opportunity of employment. It also constitutes a key factor in the present inflexible social appraisal of universities and it further itensifies the competition for admission into those universities. It is necessary, therefore, to study measures enabling each university to raise its standards while maintaining its own personality and, at the same time, ensuring employment for graduates under the exclusive criteria of individual merit and aptitude.

5) Bearing in mind the progress of urbanisation and the changes in living environments throughout society, it is now essential to make a comprehensive re-examination of locations suitable for educational establishments and to study the systematic consolidation and development of educational establishments as an integral part of the overall national land development programme.

II. School Systems and the Contents and Methods of Education

School education in this country was developed early in the Meiji Era as a key factor in national expansion. Thus, an initial foundation was laid for the nation's growth in subsequent years. The post-war reform of the school system can also be said to have played a pioneering role in the advancement of this country. At the present time, Japan occupies a relatively high position among the advanced nations in terms of the nation-wide diffusion of school education and in terms of general scholastic standards. There is, nevertheless, a question of whether or not the present educational system is capable of keeping pace with the country's rapid social and economic progress. In school education, in the past, emphasis was placed on teaching students those rudiments of culture and technology necessary only for the economic advancement of the country. Such teaching did, indeed, play a significant social role but, with this trend firmly entrenched in the school system, the general tendency to think of education solely in utilitarian terms has become evident. Moreover, with the major effort concentrated on achieving a rapid quantitative rise alone, it cannot be claimed that adequate consideration has been given to the need to develop the various potentialities of individual students.

The times, however, are changing rapidly. In a highly technological society, individuals are called upon to develop their abilities to the fullest extent. On the one hand, society demands maximum levels of learning, technical ingenuity and creativity; on the other hand, it requires the development of balanced, autonomous personalities capable of leading righteous lives in an affluent society. Moreover, with the growing proximity of nations there are more than a few aspects of development in which this country is looked to for guidance. Consequently it is, today, of vital importance to make a comprehensive survey of the merits and demerits of the current school system and lay the foundations for the social developments of the future.

Attention should be drawn to the fact that, in the past, reform of the educational system and the diversification of education was often undertaken in compliance with the needs of the times. Frequently, school courses were successfully adjusted to meet the needs of students' future careers but, just as frequently, the reforms, by creating impasses in students' school careers, created confusion and exacerbated class differences and animosities. Improvements in the goals and content of education have also been effected in the past without the benefit of prior, scientific research. Even where the selection system for student admission is concerned, it should be noted that, despite the frequent technical reforms carried out to this date, various requirements (namely, those for fair competition, propriety of selection results, the elimination of the stresses and strains accompanying preparatory studies for entrance exams, etc.), failed to be met at the same time. The result is that the ideal direction for both improvements and progress is still to be established.

Major Problems for Further Study

1) For the qualitative improvement of education the following objectives must be considered:

a) To encourage students not merely to acquire learning and technical skills but also to develop their creative faculties. To permit them to achieve a balanced growth as human beings, both mentally and physically, so that they can become worthwhile, self-reliant individuals and valuable members of their society and nation.

b) To develop the abilities of the Japanese people so that they may participate in the international society.

c) To achieve a balance between general education and technical education in the school system and to establish the ideal combination of learning and skills to be sought in school education, i.e. that which will be needed for the students' future professional and personal lives.

2) With a view to understanding, comprehensively, the human elements involved and to achieving maximum results in the development of individual potential, it is necessary to study the means of diversifying the contents of school education and to determine whether or not there is any need to increase its structural flexibility. It would also be fitting to study the contents and methods of education aimed at developing different characteristics in men and women respectively.

3) A study is called for of the following, with a view to providing students with education adapted to their individual abilities and aptitudes:

a) The development of effective methods for assessing students' abilities and aptitudes and making proper use of them.

b) Necessary conditions for giving effective instruction by ability group.

c) The time element involved in steering students into courses appropriate to their degree of maturity, personal stability, aptitudes and interests, and the manner of managing such courses.

d) Effective methods of education and guidance for students endowed with exceptional talents and abilities.

e) A systematic study of learning processes and the possibilities of applying new techniques in education.

4) With regard to the organisation of the school system, a comprehensive examination is needed to consider the following points in addition to the social demands on education. In this respect, an institutional consideration is necessary to allow for experimental studies aiming at reform within the framework of the present school system.

a) Points that should be kept in mind in considering, from the viewpoint of human development, the present divisions in the school system:

  i) That it is not clearly defined, in relation to home education, when institutionalised group education of small children should begin.

  ii) That little correlation has been established in the educational system between the education of five year-olds and that of six and seven year-old children despite their similarities in terms of growth.

  iii) That there is a big discrepancy in growth between senior graders and junior graders in elementary schools.

  iv) That the structural subdivision of secondary education into the lower and upper stages carries with it the danger of undesirable influences being exerted on the younger ones.

b) The practicability of offering a variety of courses into which pupils might be classified at the right time.

c) The educational significance of a given school being composed of school children at different stages of growth.

d) The completion of education at separate school levels and consistency throughout the whole course of study.

e) The most propitious and effective way to introduce general educational subjects, specialist subjects and foreign languages all of which are included in the so-called general education programme in the university.

f) Creating opportunities for special education and working out its proper place within the entire school system.

g) The need of "permanent education" and the creation of flexibility in the school system.

5) It is necessary to improve methods of student selection and to study measures for the alleviation of massive student application to certain specific universities. In this way we may prevent both educational imbalance and the creation of "Ronins" (unsuccessful examinees intending to try again) problems stemming from the excessively competitive situation inherent in the current admission system.

III. The Distribution of Expenditure on Education

On the basis of international comparisons, educational costs in this country have been relatively high since the Meiji Era in terms of percentages of total national expenditure and in terms of per capita income levels for each period studied. This reflects a consistent national enthusiasm for, and effort toward, educational advancement. Japan also ranks high in terms of the State's share in the total educational cost. It should be noted, however, that the rate of educational expenditure has been rather static considering the nation's rapid economic growth whereas most foreign nations have been increasing their educational expenditure in recent years.

As for educational costs per student, which are related to the qualitative standard of education, increases have been seen in Japan at elementary and secondary school levels, along with the rise in per capita income levels. The rate of expenditure on higher education has not, however, risen proportionately, although the numbers involved in higher education have been substantially increased. In terms of facilities and equipment per student the lack of a higher rate of expenditure at this level is worthy of notice.

The rate of the State's share in overall educational costs has been on the increase in many countries in recent years. Bearing in mind the social significance of education and of educational investments and their effects, the advisability of having the beneficiaries of education, i.e. the students, bear the costs of their education, should be reconsidered. Differences in their financial situations have resulted in a variety of discrepancies between national and local public universities on the one hand and private universities on the other. Taken from a national standpoint, it is irrational that students attending private universities should be obliged to pay higher fees than those at national or local public universities. This occurs despite the similarity between the two groups of universities as institutions of higher learning, and despite the fact that an overwhelmingly larger percentage of students attend private universities.

The salary level of elementary school teachers has been kept at a certain percentage level in relation to per capita spending standards since the Meiji years. Salary levels of upper secondary school and university teachers have declined relatively, however, in an inverse proportion to the quantitative expansion of upper secondary and higher education. There has thus been a tendency for the salary differentials between groups of teachers to even out. Teachers' salaries have also been pegged at a lower level than the comparable salaries in private enterprise. It should be noted that there is a considerable difference in pay scales between national and local public universities and private universities. Moreover, the salary level of university teachers in Japan is lower than the international standard in relation to the per capita income level of the country as a whole.

Major Problems for Further Study

1) The percentage of the national income to be set aside for education in order to maintain Japan's rate of progress should be determined within a general perspective of social, economic and cultural development both at home and abroad. Within such a framework all expenses relating to all educational activities, including school education, should be considered.

2) A reappraisal of the idea of making the students bear the costs of their education is now called for, bearing in mind the public nature of education, the effects of educational investments, etc.

3) Possible improvements in the distribution of the burden of educational costs between national and local public authorities should also be considered. Here one must take into consideration the higher rates of educational expenditure needed by the less affluent local authorities. This could accentuate the various discrepancies between certain regions. Such improvements must be seen in the context of population mobility, with students moving from their homes to institutions of higher learning or to employment.

4) The present policy concerning financial assistance to private schools should be re-examined as an integral part of overall development for all of the national, local, public and private educational institutions.

5) A study should determine to what extent capital expenditure in school education should be increased, with a view to achieving a qualitative improvement of school education and the renovation of educational methods for the future.

6) Studies should be made of the improvement of working conditions of teachers including pay levels, salary scales, etc., as a means of obtaining qualified teaching staffs better adapted to the school education of the future. This problem should be examined within the context of total educational expenditure.

Chapter II

A DISCUSSION OF SPECIFIC SCHOOL LEVELS

I. Pre-Primary Education

Pre-school education has spread rapidly since the war, and the demand for it will surely increase in the future. There is a considerable disparity between regions in the availability of kindergartens and nursery schools, but this disparity is not attributable to the difference in functions between these two types of establishment for pre-primary education. The spread of kindergartens is much slower in towns and villages with smaller populations and lower per capita income levels. There is also a considerable regional difference in the availability of public and private kindergartens.

Definitive conclusions cannot be reached at this point as to the value of pre-school education, but its general merits have been widely accepted. In view of the manifold changes in the living environments for small children due, in part, to the acceleration of urbanisation, changes in family structure, etc., it is essential to adjust and improve the pre-school educational system while, at the same time, giving proper attention to the role of home education, so that the protection and the education of small children can be carried out in conformity with those changes. In addition, the need for early education to discover and develop special talents in small children is advocated in some circles at the present time. This problem cannot be taken up as an institutional one at this stage, however.

Major Problems for Future Study

1) Measures for promoting a balanced development of pre-school education and home education from the standpoint of the protection and education of small children.

2) As regards kindergartens and nursery schools which now play mutually complementary roles as institutions for pre-school education: how to co-ordinate their functions rationally and ensure their systematic expansion and adjustment in conformity with their respective roles.

3) The appropriate roles the national and local Governments should play in the diffusion and improvement of pre-school education in the future. These should take into account the wide regional disparity in the availability of pre-school education and the extreme financial burdens parents are now obliged to bear because their main reliance, even in urban areas, is on private kindergartens.

II. Primary Education

Elementary education in this country was established as an essential part of Japan's development into a modern state. It was conceived as a unitary school system for all classes. It was created in response to several basic needs: for unification, for the development of a national consciousness, for national prosperity, strength, industrial development and productivity. Education was made available to the masses through "Terakoya", temple schools before the Meiji Era and elementary education spread rapidly throughout the country as a result of the establishment of a compulsory school system. This country now occupies a leading position in the world in terms of educational diffusion and its system of primary education is genuinely stable.

Nevertheless, a number of educational problems still remain to be solved within the context of children's growth. For example: the correlation of kindergartens with elementary schools; the individual differences in the growth of the junior and senior graders in elementary school, and so forth. And, while elementary education teaching programmes have been expanded, reflecting the complexities and the advancement of society, it is still essential to consider the development of school children's various potentials without leaning toward an education in which learning is imparted in too general a manner.

Major Problems for Future Study

1) Measures for institutional and managerial improvements necessary for developing the various potentials of school children in harmony with their growth.

2) To study the role the national Government should play in the improvement and natural advancement of basic popular education while giving adequate consideration to the more effective application of school teachers' creativity and judgement.

III. Secondary Education

Since the Meiji Era secondary education in this country has been faced with the problem of how to place general and vocational education within the school system and curricula. In the pre-war period a dual system was developed, dividing general educational schools from vocational training schools, but, at the end of the last war, all schools were streamlined into a single-track system of lower and upper secondary levels. Under the current system steps have been taken to provide in the upper secondary schools a general course of study and a vocational course; also, within a general course, students are now able to take vocational subjects as well. This method was adopted because about 40 per cent of the general course graduates takes up employment on leaving school.

As it turns out, however, even these students who enter school with the intention of taking jobs after graduation are prone to prefer the general course of study for a variety of reasons, including their own difficulty in deciding on a career, the general tendency for employers to give priority to general course graduates and, not the least, the fact that their chances of going on to advanced schools are virtually nil if they opt for the vocational course. There is a clear indication that the choice of either course is made not on the basis of the student's ability, aptitude and future career; rather, it is based on the need to obtain adequate entrance qualifications for further education.

In pre-war years, enrolment rates in secondary schools were merely 20 per cent or thereabouts whereas today the rate of advancement to upper secondary schools has exceeded 70 per cent. Therefore, the upper secondary school has turned out to be an educational institution for the majority of the population. The need for further diversification of upper secondary school education is expected to increase, along with a rise in the rate of advancement to upper secondary schools; students possessing varied levels of ability and aptitude are enrolled and it is imperative to provide vocational training for the greater part of the student body, which enters the labour market immediately upon graduation. There are various other problems inherent in the secondary education system: a lack of consistency in curricula results from the sub-division of secondary education into junior and senior stages of only three years' duration each and has adverse effects on the pupils' growth during adolescence.

Major Problems for Future Study

1) The merits and demerits of the present system of sub-dividing secondary education.

2) How to organise courses in such a way that the choice of a vocational course cannot exclude students from progressing to higher education. At the same time to study the most propitious moments to classify students into different courses and thus obtain a more flexible method of managing the classified courses.

3) To re-examine the organisation of general education and technical education in upper secondary schools, forecasting the trends of social demands and taking into account the students' future goals and their ramifications within the diversified senior secondary education programme as a whole.

IV. Higher Education

With higher education expanding at a pace in keeping with socio-economic growth, about half the population hopes to benefit from higher education already. It is evident that this widespread demand for higher education is accentuated by the general tendency to ascribe high social status to nominal school backgrounds. Judging from the development of the knowledge industries and the prospects before us of a future "information society", demand for and entry into higher education can only be expected to go on increasing.

It is essential, however, to effect qualitative improvements in higher education in keeping with its quantitative expansion. In reality, the universities are inclined to remain satisfied with their traditional organisation and reforms to bring the universities up to date have not been carried out. These factors, coupled with others, have given rise to various problems. For example, the following issues can be pin-pointed:

a) Universities frequently fail to encompass their dual functions of education and research.

b) Their objectives and the contents of their education remain uniform although the demands upon the system are varied.

c) Little change has been evoked in the perception of teachers of the demands now made on them, nor in the system of student guidance, despite the considerable changes in the types of students enrolled.

d) General education, though loftily conceived, still fails to display adequate results.

e) The continuous expansion of the university is inadequately handled because of a lack of reformatory zeal and inefficient administration.

f) It is very difficult to secure capable, talented teachers and administrators and thus to renovate the presently exclusive personnel in universities.

Furthermore, the research structure within the university is far from being responsive to today's need for ever more advanced studies. This is evident in its failure to adapt to new academic fields.

Private institutions account for 75 per cent of all students in higher education. They thus meet a major part of the educational demands of the people. There has been little difference in the social function of the private and national and public institutions, but a gap has arisen between them in terms of the qualitative standards and the burdens of tuition because of the weaker financial position of the private institution. There has also been a visible trend in this country to concentrate educational institutions in large cities and the humanities departments predominate over all the other specialised fields in those institutions. This is not unrelated to the current practice of approving the universities' establishment and to the financial position of private universities and colleges.

Major Problems for Future Study

1) To re-examine the best way of categorising and effectively organising institutions of higher education in general, as well as organising research agencies attached to institutions of higher education, in order to make both the educational and research functions of universities more effective while, at the same time, taking into consideration the ideal social role they should play in the future.

2) To study, judging from the past achievements of general education in the university, whether its educational goals can be attained by an improvement of present conditions and the enforcement of present methods or only by the introduction of more drastic structural reforms.

3) To study under what management structure within the university voluntary reforms can be promoted in harmony with social advancements, and more efficient administration, management and renovation of personnel administration can be undertaken.

4) To study how investment in education may raise the quality of higher education as a whole, and to study the following points designed to achieve a rational and systematic expan[illegible] and enrichment of institutions of higher education:

a) The significance of classifying universities by establishment into national, local, public and private universities.

b) Methods for establishing a sound financial basis for national, public and private universities.

c) Future social demand in specialised fields.

d) Regional distribution of these institutions in connection with the overall national development plans.

V. Special Education

The approach to special education should be positive, aimed at developing all the abilities and aptitudes of handicapped pupils, given their mental and physical disorders, instead of passively attempting to compensate for their defects. It is pointed out, through the results of previous studies and educational practices, that flexible educational treatment, conforming to the type and degree of disorder, is essential, that early education proves more effective and that it is also necessary to have handicapped pupils study together with normal pupils whenever possible. Comprehensive joint studies combining the specialist skills and knowledge of pedagogy, psychology, medical science, engineering, etc., are vital to the furtherance of special education in the future.

With regard to the availability of special education there are differences in the type of disorder treated and there are wide differences among regions.

Major Problems for Future Study

1) With the hope of achieving a qualitative improvement and an advancement of special

education at the same time, comprehensive research is needed into the many problems involved in the study of physically and mentally handicapped children, including those of diagnosis, differentiation and treatment of disorders, education and training, social independence and so forth. Methods for the dissemination of the results of such research should be studied as well. Furthermore, study should be made of the relations between measures for the promotion of special education and measures concerning child welfare.

2) The question of early special education, of special schools and vocational education beyond the school-leaving-age limit should be examined as well as the provision of institutions for special training for each type of disorder and for each national region. Guidelines should be established, also, concerning the establishing bodies of such schools.

VI. Teacher Training

A major task for any educational system is to recruit and train able teachers. Such teachers must be endowed with a sense of vocation as well as an affection for their pupils. These are basic points and lie behind any kind of teacher training envisaged.

In the training of teachers in pre-war years a strong emphasis was placed upon the building of a high moral standard among teachers. In the post-war years, however, teacher training was begun in the universities and stress was laid on teaching as a profession calling for specific knowledge and capabilities. A wide cultural background was sought for teachers in addition to their specialised professional requirements. Now, developing the ideal even further, it is argued that teachers should be well-rounded personalities equipped with an extensive cultural background and a high degree of professional training and skill. Yet the education available in teacher training faculties or in teacher training courses in other faculties in the new university system (as inaugurated after the last war) cannot be said to have attained its original objectives. Moreover, there is a clear tendency among particularly talented young people to seek outlets other than in the teaching profession.

A call has come from the schools themselves for the type of teacher who really understands his charges, who takes a keen interest in the fostering of their creativity and who, himself, possesses both the ability and the personality needed to give student guidance. A further study of the present teacher training system should be made in the light of these requirements.

Moreover, it has become increasingly difficult to adjust the supply and demand situation of teachers on a prefectural level alone as a result of the recent concentration of population in large cities.

Major Problems for Future Study

In view of the importance of recruiting top quality talents into the teaching profession, it is urgent that improvements in the scholarship system for teacher candidates be made in addition to improving current working conditions. Examination of the following issues is suggested:

a) An improvement in teachers' training to develop the capabilities required of professional teachers and the expansion of systematic programmes for the in-service training and education of practising teachers.

b) The possibility of introducing departmentalisation into the senior grades of elementary schools, and measures for the training of teachers capable of adapting themselves to the new educational methods consequent on the development of teaching aids.

c) Measures to develop further the capabilities and the training and recruitment of upper secondary school teachers in line with the diffusion of senior secondary education.

d) Measures for wide-range readjustments of inter-regional imbalances in the supply and demand position of teachers.

e) The most suitable organisation for the attached school as an establishment where various educational experiments can be conducted for the elevation of educational standards and for institutional improvements as well.

VII. Compulsory School Attendance

This country visualised the eight-year compulsory education period as a long-range plan early in the Meiji Era. It put it into action gradually as national resources developed, adopting a flexible formula in its enforcement in conformity with the needs of the times. Compulsory education aimed in the beginning at teaching children the basic knowledge and techniques needed by everyone. Along with the diffusion of education and the extension of the compulsory education age, however, more importance became attached to providing children with equal and appropriate opportunities for education according to their mental and physical growth.

There has been a great deal of argument recently concerning the feasibility of extending the school-leaving age even further in the light of the predicted needs of the future. This should also be reviewed in the context of the idea of "permanent education". Moreover, looking back at the rapid progress of the recent past it would be valuable to consider, in terms of a long-range plan, the gradual future extension of the compulsory education period and the adoption of a more flexible formula concerning compulsory school attendance.

Major Problems for Future Study

1) To study the need and possibility of extending compulsory education to include pre-school education.

2) Inasmuch as upper secondary education is soon to be diversified in accordance with the students' abilities, aptitudes and choice of future courses in life, a study is suggested of the possibility of gradually making this level of education compulsory.

3) To study effective measures for dealing with un-enrolled children or long-term absentees within the compulsory age group, considering that there still exist considerable numbers of such children, though their frequency differs from province to province. Many of these un-enrolled or chronically absent children could be made the object of specialised education.

PART TWO

REPORTS OF THE SUB-COMMITTEES XXI, XXII AND XXIII

Chapter I

NATIONAL AND SOCIAL DEMAND FOR SCHOOL EDUCATION AND EDUCATIONAL OPPORTUNITY

(The Report of Sub-Committee XXI)

A. POPULAR DEMAND FOR EDUCATION AND EDUCATIONAL OPPORTUNITY

I. Factors Increasing the Number of Students who want to Proceed to Schools and Universities

1. Analysis of Factors Determining Individuals' Career Decisions

The individual's desire to proceed to higher levels of education is determined by a complex interplay of factors: "limiting factors", such as, for example, the immediate cost of education and the income foregone and "promotional factors" such as a rise in people's living standards, a rise in their educational level, their strong motivation for higher education, etc. A variety of other social differences are also in operation, and an analysis of such factors and differences is to be found in Section D of this Chapter entitled "Regional, Economic and Social Differences and Educational Opportunity".

2. Analysis of Correlations between Enrolment Ratios and Indices of Social and Economic Development

The following tendencies can be observed from the quantitative analysis of the correlations between, on the one hand, enrolment ratios of secondary education (middle schools in the old system and upper secondary schools in the new system) and the junior stage of higher education (colleges in the old system and universities and junior colleges in the new system) and, on the other hand, indices of socio-economic development such as average educational level of the people, national income per capita income, the percentage of national income spent on education and the distribution of educational expenditure. The analysis covers two periods, one period including both pre-war and post-war years and the other the post-war years only.

Underlying such tendencies, there might well be various other factors of importance such as, for example, the post-war reforms of the school system, the popularisation of the notion of equality between men and women and reduced governmental control over the private schools.

a) An increase in enrolment ratios among male students in higher education is closely related to an increase in per capita national income in both the pre- and post-war years. In the post-war years it bears some relation to the rising educational level of the "working-age" population (15-64 years old) and the relatively low educational level of mothers. There is, moreover, a time lag between increases in the enrolment ratios of male students in higher education and those in secondary education.

b) An increase in the enrolment ratios of female students in higher education correlates closely with the expansion of secondary education and the increased enrolment ratios of male students. Since the war, this has also correlated with a climbing national per capita income, the rising educational level of fathers and of the working-age population, and the relatively low educational level of mothers.

c) An increase in the enrolment ratios of male students in secondary education is closely correlated with the rising educational level of mothers and with an increase in the rate of educational expenditure. After the war, however, the closest correlation is found between the male enrolment ratio in secondary education and a rise in the educational level of the working-age population.

d) An increase in the enrolment ratios of female students in secondary education bears close correlation with increases in per capita income and the enrolment ratios of male students. Since the war, however, it seems to have been related to increases in the enrolment ratios of male students and in the educational level of fathers and to the low level of income.

3. Analysis of Common Factors Underlying the Indices of Social and Economic Development

In order to ascertain by what kinds of common factors the correlations between indices of socio-economic development can be explained, an analysis of common factors was conducted, using the same indices. The conclusions which can be drawn from the results of the analysis are as follows:

a) There are four major factors contributing to correlations between these indices. Of these, the first factor with the highest rate of contribution to the development of education (80 per cent - 90 per cent) is what we will call the "balanced development factor" which shows that various social and economic factors have developed concurrently. The other three factors are: a "level of education factor" which shows the extent to which an emphasis was placed upon the low level of education; a "take-off factor" which shows that the lower levels of educational attainment and income help increase the propensity to invest in education and thus to take off from the present status, and a "need-educational achievement factor" which shows that the demand of individuals for higher levels of education tends to increase as the level of income rises.

b) The significance of these factors in the pre-war years is different from that of the post-war years in the following way:

i) The "balanced development factor" contributed to the increases in enrolment ratios of female students in higher education and of both male and female students in secondary education to a greater extent in the post-war years than in the pre-war years. This confirms the advancement of the ideas of equal rights for both sexes in the post-war years.
That this factor greatly contributed to the decrease in the proportion of school education expenditures allocated to elementary and secondary education reflects the increasing development of higher educational levels in the post-war years.
It should also be noted that this factor contributed only to a relatively small extent to the changes in the proportion of national income spent on education after the war.

ii) The "level of education factor" contributed to maintaining the high proportion of school education expenditures spent on elementary and secondary education before the war. The extent of its effect, however, decreased after the war.
Nevertheless, this factor contributed to the slight decline in the enrolment ratios of higher education. This meant that higher education was expanded and improved upon

to a lesser extent than the upper stages of secondary education after the war.

iii) The "take-off factor" tended to increase to a greater extent after the war than before it. This factor contributed especially to the rise in the percentage of national income spent on education. This indicates the demand for education in all classes during the post-war years.

iv) The "need-educational achievement factor" contributed to an increase in the enrolment ratios in both secondary and higher education, especially of female students in higher education before the war.

4. An Evaluation of the Increase in Enrolment Ratios

On the basis of the previous analysis of correlating indices and common factors, the increase in enrolment ratios in secondary and higher education so far recorded can be evaluated as follows:

a) Since the Meiji Era school education in Japan has shown a well-balanced growth consistent with the rise in income levels and educational attainments.

b) The growth of higher education for women has not been as balanced as for men. However, an orientation toward higher educational attainment, which was strengthened by the rising income level, helped to promote the growth of higher education for women. It should be noted that such growth is closely related to the increase in the level of the educational attainments of men (Figure I.A.1).

c) Enrolment ratios achieved a more balanced increase in terms of economic and social development after the war than before the war. Therefore, it would be inaccurate to claim that the post-war increase was abnormal in comparison with the pre-war years.

d) During the pre-war years emphasis was given to the development of lower educational levels and a major proportion of expenditures were allocated for that purpose. The situation altered after the war. It would now be appropriate to examine the financing of higher levels of education.

e) Before the war the proportion of national income spent on education increased while maintaining a healthy balance with the increase in enrolment ratios and in the level of income. It should be noted, however, that since the war this balance has decreased somewhat while there has been a tendency among the people to invest in education to a much greater extent.

II. Applications and Admissions to Higher Education, Characteristics of "Ronin-students" and of those who fail to gain Admission

1. Applicants for Admission to Universities and Junior Colleges, by Field of Study

After the war, junior college and university facilities were rapidly expanded, increasing 3.4 and 9.6 times, respectively from 1950 to 1967. Competition for entrance in terms of total numbers of applications is intensifying. The relationship between applicants successfully admitted and the total number of applications is presented in Figure I.A.2 for each field of study. From this figure the following conclusions can be derived:

a) Where social demand for education is concerned there are shortages of facilities in the fields of medicine, dentistry and pharmaceutical studies.

Figure I.A.1

PARALLEL INCREASE IN THE AVERAGE NUMBER OF SCHOOL YEARS COMPLETED BY MEN AND WOMEN

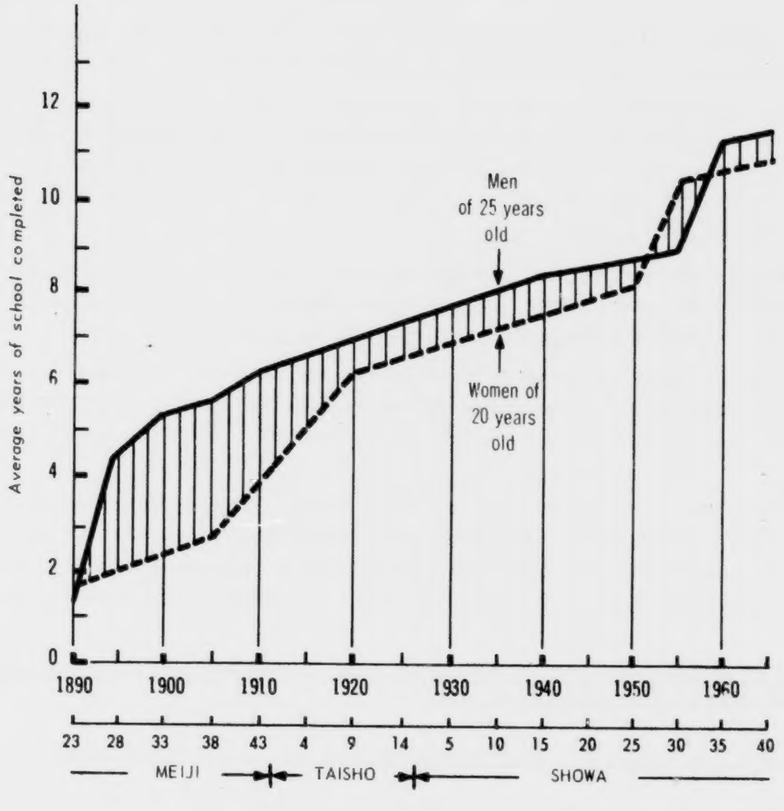


Figure I. A.2

NUMBER OF APPLICATIONS AND ADMISSIONS
TO UNIVERSITIES AND JUNIOR COLLEGES.
BY FIELD OF STUDY

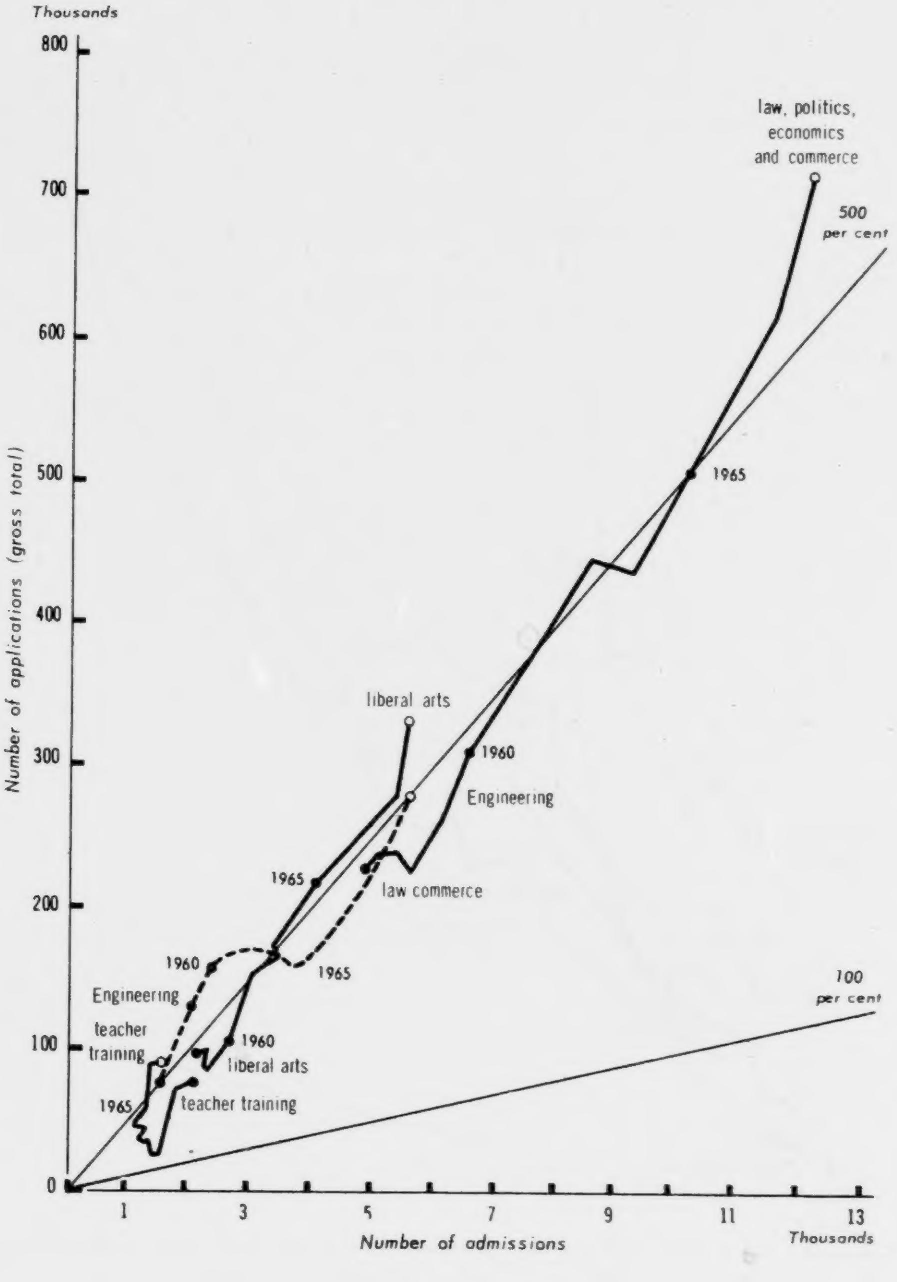
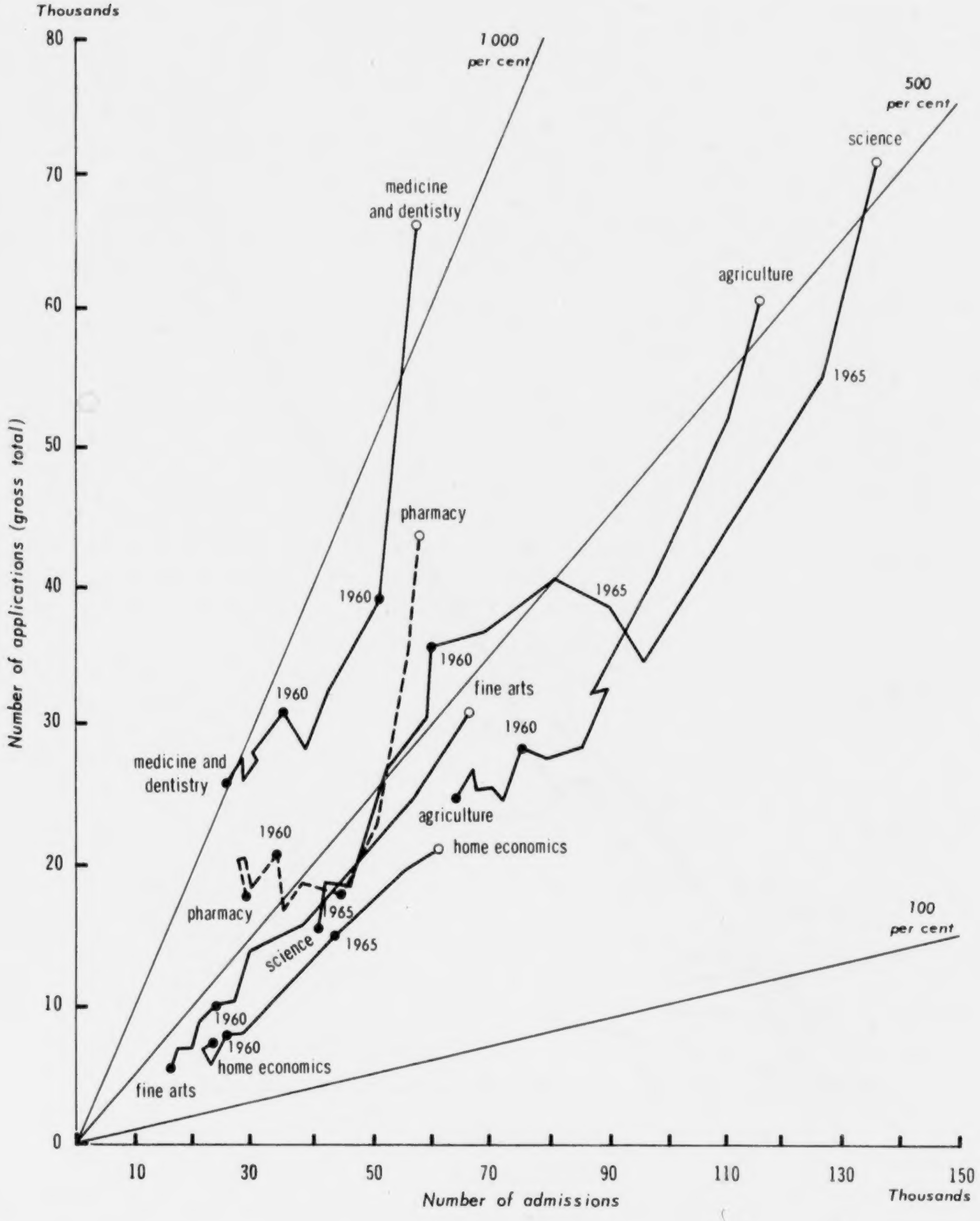


Figure I. A.2

NUMBER OF APPLICATIONS AND ADMISSIONS TO UNIVERSITIES AND JUNIOR COLLEGES, BY FIELD OF STUDY

(continued)



b) The rates of competition for admission to other fields of study have been fluctuating around the average rates. On the whole, the applicants' preferences for fields of study do not emerge too clearly.

2. Trends in University Admissions, by Sex

In this category, however, there are marked differences between men and women applicants. Men tend to concentrate on such fields as law, political science, economics, commerce and engineering. Women appear to concentrate on literature, education and home economics. As a result, more than half the student body in the fields of literature, teacher training, pharmacy and the arts are women.

3. Fields of Study at Universities by "Establishing Body"

The distribution of fields of study by "establishing body" encounters certain problems. That is, there are wide differences among national, local public and private universities in terms of the facilities available in each field of study. National universities have a markedly greater capacity in teacher training and engineering departments; the major facilities in local public universities are shared by the fields of law, political science and literature; and law and political science occupy a prominent position in private universities.

4. Quality of Applicants and Those who are Admitted

An analysis of the level of scholastic achievements of applicants and those admitted to upper secondary schools and universities is to be made.

5. The Present Status of the so-called "Ronin-students", or those Unsuccessful Applicants who are Waiting for Another Chance

A detailed analysis of factors resulting in the creation of "ronin-students" is to be carried out. It is possible now, however, to point out the following, based on an analysis of recent entrants:

a) Approximately 31 per cent of successful applicants for universities in 1967 had been through a ronin period. The percentage was particularly high in medicine and dentistry (almost 50 per cent). Even in junior colleges the proportions mounted to about 12 per cent on the average and nearly 40 per cent among the male students.

b) Of those upper secondary school graduates who applied for admission to institutions of higher education in March 1965 (cf. Figure I.A.3), 95 per cent were admitted to a university of some kind up to 1967: 75 per cent succeeded on their first application, 16 per cent on their second and about 4 per cent on their third. The repetition of this situation every school year makes it difficult to find a solution to the ronin problem.

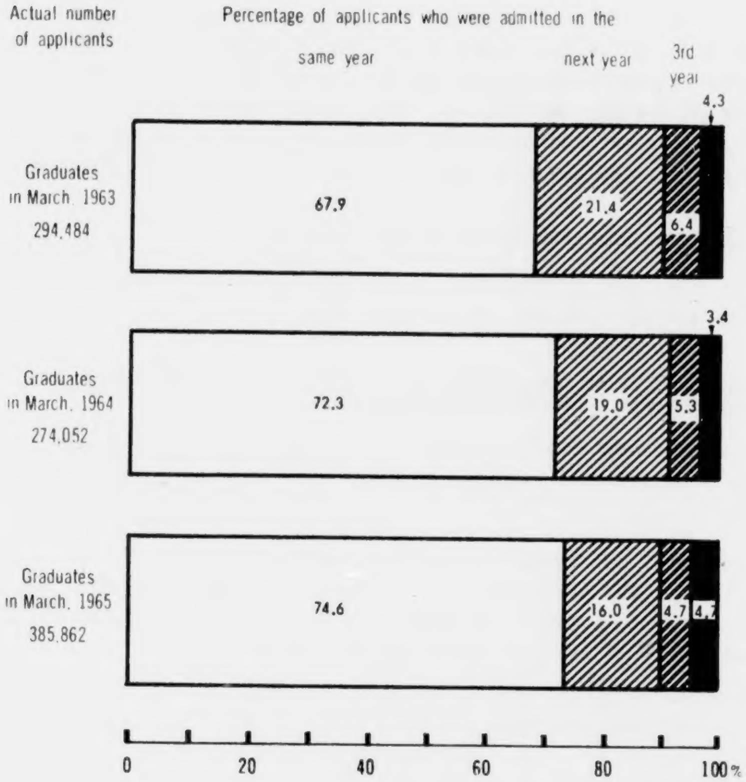
III. The Increase in Popular Demand for Pre-school Education and the Extent to which it has been Satisfied

1. Expansion of Pre-school Education

Kindergarten facilities were available for only about 3 per cent of children between the ages of three and five years before the war. During the 20 years after the war that proportion rose to 20 per cent. The proportion for nursery schools also increased from 10 per cent in 1957 to 17 per cent in 1967.

Figure I.A 3

PERCENTAGE OF THE TOTAL NUMBER OF APPLICANTS TO HIGHER EDUCATION WHO WERE ADMITTED



2. Kindergartens and Nursery Schools

Twelve per cent of three-year-old children are enrolled in either kindergartens or nursery schools. Seventy-five per cent of those are in nursery schools. Forty-six per cent of four-year-olds are enrolled in either nursery schools or kindergartens. Of these 60 per cent are in kindergartens. Sixty-nine per cent of five-year-olds are in either kindergartens or nursery schools and of these 67 per cent are in kindergartens.

3. Conditions Relating to the Expansion of Kindergartens

There is a close link in the expansion of kindergartens during both the pre- and post-war years with the increase in per capita income levels.

4. Regional Differences in this Expansion

There are marked regional differences in the degree of expansion of pre-school education as demonstrated by Figure I.A.4. There is no visible uniformity as to whether emphasis is placed on either kindergartens or nursery schools. Both these pre-school educational institutions appear to play mutually complementary roles.

5. Factors Behind Regional Differences

The growth figures for pre-school education for five-year-olds are shown in Figure I.A.5, for each municipality. The rates are low in towns and villages of populations under 30,000, whose "financial capacity indices" show less than 60. This constitutes 75 per cent of all the municipalities in Japan.

6. Popular Demand for Pre-school Education

A separate survey to assess the awareness of and necessity felt for infant education on the part of their parents, should be made.

7. Public Kindergartens and Nursery Schools

Twenty-six per cent of kindergarten children are enrolled in public kindergartens and 63 per cent of nursery school children are enrolled in public nursery schools. These percentages, however, vary greatly from one region to another. Therefore, the economic burden of this kind of education upon families also varies from region to region.

IV. Children not Enrolled in Schools and Chronic Absenteeism

1. The Percentage of Compulsory School-age Children who are not Enrolled

Of every 100,000 school-age children, 1,200 boys and 2,600 girls were not enrolled in schools at the end of the Meiji period. Today, however, there are only 200 boys and 160 girls per 100,000 who are not enrolled in schools. Up until about 1952 there were a large number of children who were not enrolled in the lower secondary schools which were made compulsory after the war. The number of such children decreased to 70 boys and 60 girls per 100,000 after 1952. Nevertheless, the percentage has begun to rise again recently.

Figure 1.A.4

PERCENTAGE OF CHILDREN OF FIVE YEARS OLD
WHO ENROLLED IN KINDERGARTENS AND NURSERY SCHOOLS, AS OF 1966

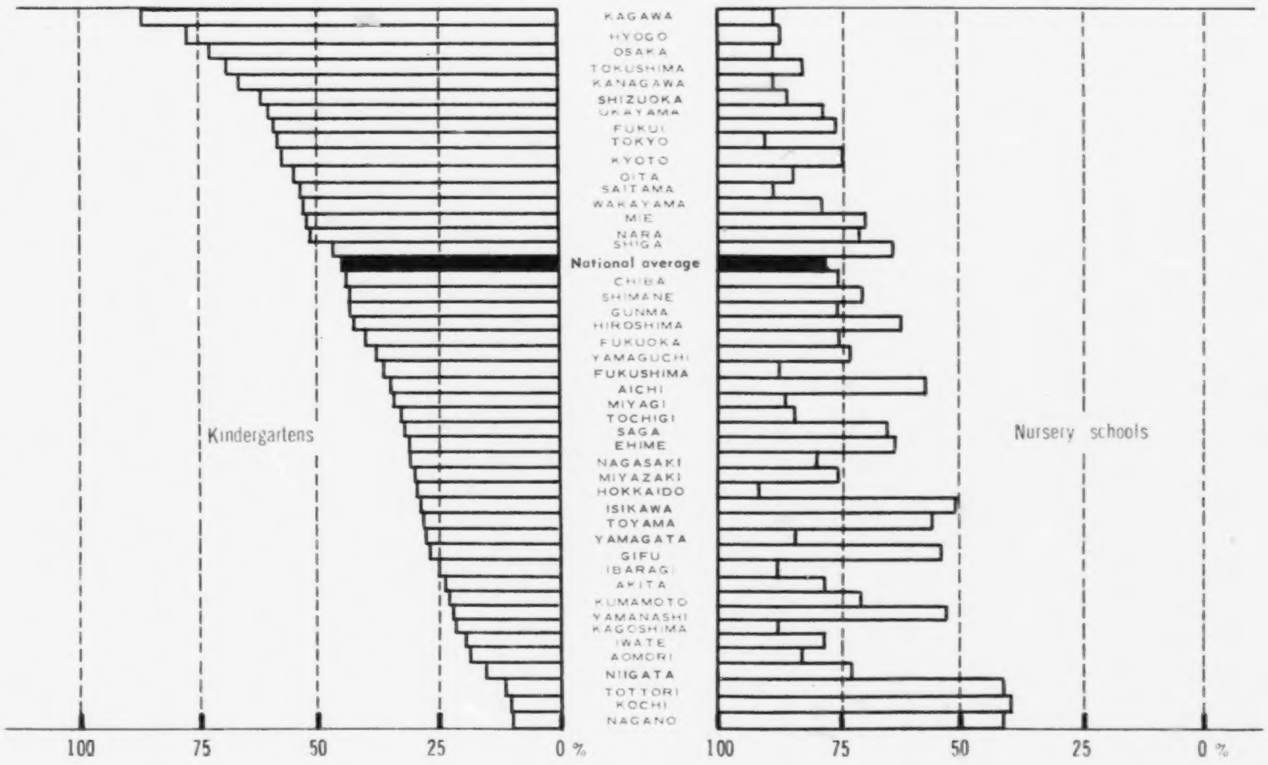
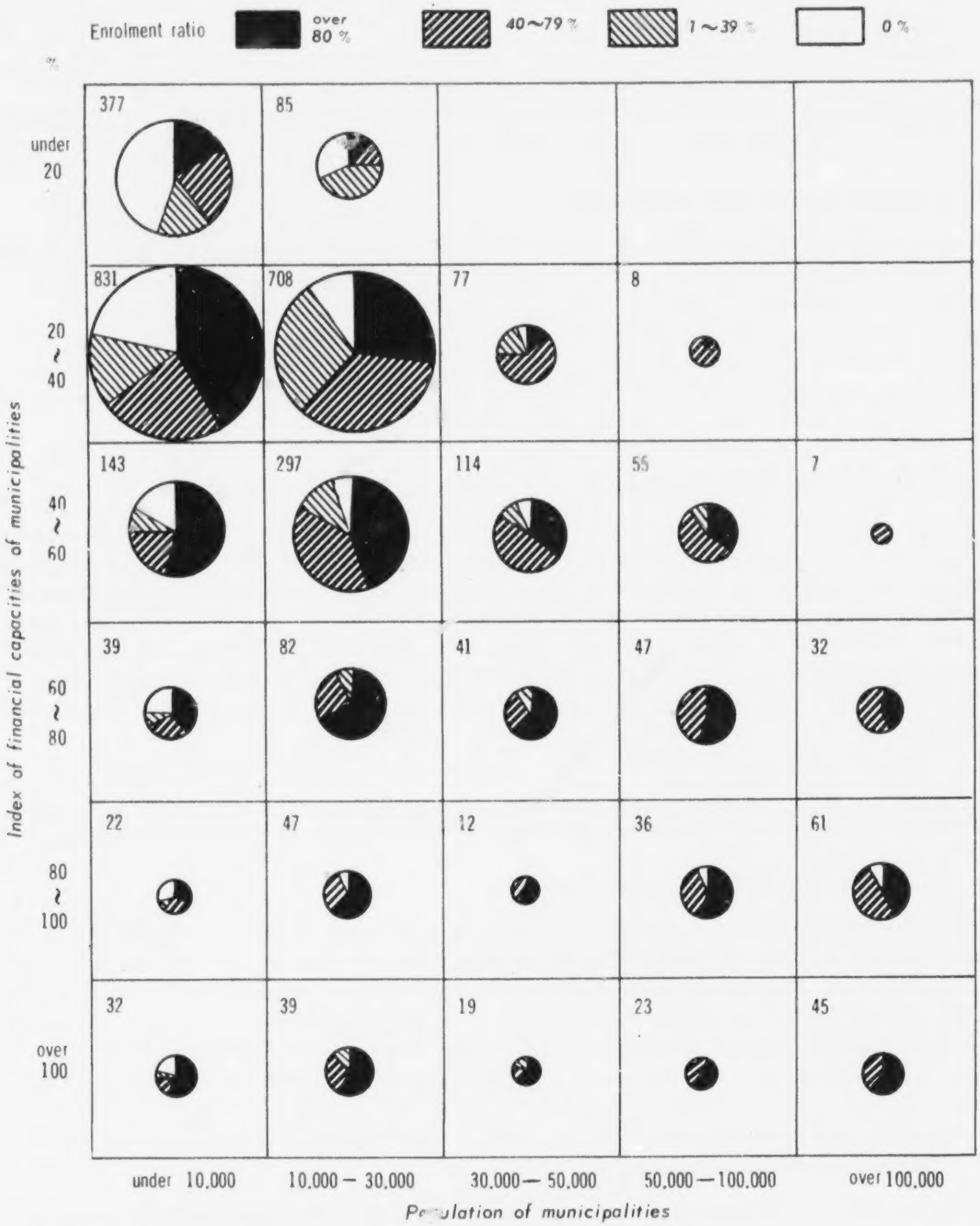


Figure I. A.5

DISTRIBUTION OF THE NUMBER OF MUNICIPALITIES
BY INDEX OF FINANCIAL CAPACITY, SIZE OF POPULATION AND ENROLMENT RATIO
OF THE FIVE YEAR OLDS IN PRE-PRIMARY EDUCATION INSTITUTIONS (AS OF 1966)



Note: Figures and the area of circles show the number of municipalities.

2. Reasons why there are Compulsory School-age Children who are not Enrolled

About half the number of school-age children who are not enrolled in schools are mentally handicapped. The second largest category is composed of the crippled and physically weak. The mentally handicapped and the crippled are on the increase. On the other hand, the number of physically weak is declining.

3. Proportion of Long-term Absentees

Recent statistics show that only 0.4 per cent of elementary school pupils and 0.8 per cent of lower secondary school pupils are absent from school for more than 50 days a year. The percentage is somewhat higher for boys than for girls.

4. Reasons for Long-term Absenteeism

In the breakdown of the causes of long-term absenteeism, the following observations were made: that illness decreased as a causal factor by 50 per cent between 1952 and 1966; that economic hardship decreased by 90 per cent; that absenteeism resulting from a dislike of school also decreased. In recent years, 70 per cent of long-term absentees in elementary schools and 45 per cent in lower secondary schools have been kept away by illness, but in lower secondary schools, 30 per cent of long-term absenteeism is still due to dislike of school.

5. Regional Differences in Long-term Absenteeism

There are also regional differences visible in the proportion of pupils who are long-term absentees. In elementary schools regional differences are marked in the category of long-term absenteeism due to sickness. In lower secondary schools, the proportion of long-term absenteeism due to "economic reasons" and to "school aversion" is found to vary from one region to another (cf. Figure I.A.6). There is a high correlation (about 0.61) between proportions of long-term absenteeism due to economic reasons and school aversion in lower secondary schools. The proportions are especially high in Hokkaido, Aomori, Iwate, Capital City area, Kinki area and Nagasaki.

V. The Extent to which the Opportunity for Education and Training Other than Formal School Education has been Increased to Meet Social Demand for Education and Manpower Requirements

1. Development of Miscellaneous Schools

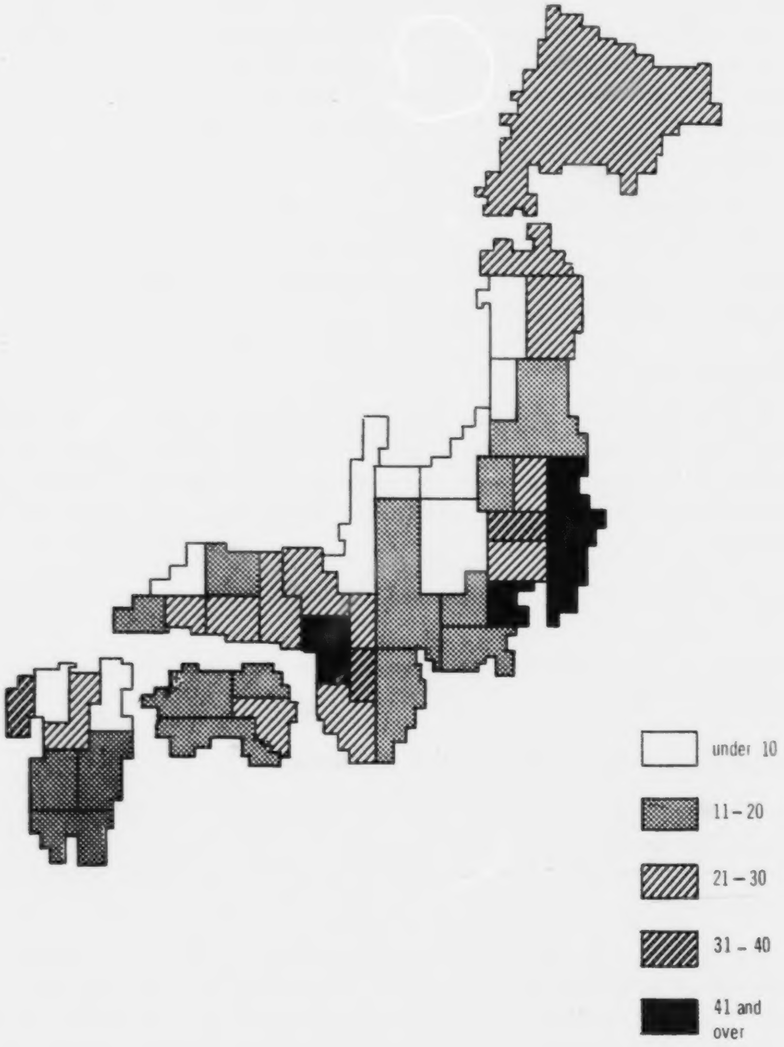
Enrolments in miscellaneous schools had exceeded enrolments in formal schools beyond compulsory education levels by the middle of the Meiji Era for boys and by the end of the Taisho Era for girls. This means that miscellaneous schools have been playing an important role in supplementing formal school education for some time. In recent years, however, enrolments in miscellaneous schools have accounted for only 10 per cent of enrolments in formal schools for boys and 40 per cent for girls. The absolute numbers, however, are still on the increase.

2. Courses in Miscellaneous Schools

An examination of courses offered since the war indicates that miscellaneous schools have been providing opportunities for obtaining such professional or specialised learning or skills that are not available in ordinary schools. This has arisen in response to rapidly changing social demands.

Figure I.A.6

NUMBER OF LONG-TERM ABSENTEES DUE TO «SCHOOL AVERSION» PER 10000 OF THE TOTAL ENROLLED IN LOWER SECONDARY SCHOOLS, BY PREFECTURE (AS OF 1966)


under 10
11 – 20
21 – 30
31 – 40
41 and over

a) Male enrolment in clerical courses has decreased from 60 per cent to 20 per cent. On the other hand, male enrolments in technical courses (for industry, automobile manufacture, medical technology, agriculture, etc.) have increased from 20 per cent to 40 per cent and those in other courses (including preparatory schools) increased from 10 per cent to 35 per cent.

b) Female enrolment in home economics ranks first of all, though it has decreased from 80 per cent to 60 per cent. Female enrolment in technical courses (hairdressing, nursing, midwifery, teacher training, etc.) is increasing rapidly.

3. Vocational Training

Various kinds of vocational training centres, although on the increase, still account for only a small percentage of miscellaneous schools in terms of absolute numbers. Most of these centres are designed to train carpenters, dressmakers, plasterers and mechanics. These grew up firstly because the apprenticeship system, which used to be the traditional form of training in those fields, became unwieldy when the age for compulsory education was raised and secondly because of the expansion of the upper level of secondary education. The number of vocational trainees changed as follows:

a) Trainees in publicly-maintained vocational training centres increased in numbers from 28,000 in 1954 to 60,000 in 1967.

b) Trainees in accredited vocational training centres within industry itself increased from 62,000 in 1958 to 84,000 in 1967.

4. Social Education

"Youth classes" are on the decrease as a result of the broadening of upper secondary school education and the movement of youth away from the countryside. But the number of people taking correspondence courses is on a rapid increase. Correspondence courses now play an important role in meeting the needs of working youth throughout the country for practical and technical knowledge.

a) Attendance figures for "youth classes" showed a decrease from 1,090,000 in 1955 to 310,000 in 1966.

b) The number of those who received education by correspondence increased from 180,000 in 1961 to 390,000 in 1966.

5. Public Participation in Educational Activities

The results of the "Survey of the Cultural, Physical and Social Educational Activities of the People", which was conducted in 1967, indicate the following tendencies in the extent to which persons over 15 years of age now have or seek to have an opportunity for extra-curricular education.

a) Nine per cent of males over 15 years of age and 17 per cent of females over 15 years of age participated in some sort of educational activity during the four-week period from October to November 1967, in order to acquire skills needed for employment or for everyday living or to improve their general cultural background. General culture was pursued, in particular, irrespective of age, sex or occupation.

b) Eighteen per cent of males and 29 per cent of females attended social education classes or lectures during the past one-year period. More than half of them attended in order to increase their level of general culture and learning. One-fourth of the males attended in order to improve their performance in their present occupations. One-fourth of the females attended in order to improve their daily living standards. Men said that they would like to see courses on "current social and political problems" included in future curricula, and women asked for courses in "matters useful to home education".

6. What Problems should be Examined Further on the Basis of this Information?

Problems for further study:

a) If the question of the extent to which opportunities for secondary and higher education should be broadened in the future is to be examined, it is necessary to take into account the fact that enrolment ratios have increased in close relation to social and economic development; therefore, such seemingly rapid increases in enrolment ratios were never abnormal.
The increase in enrolment ratios in secondary education was a logical result and higher education is expected to expand further, along with increased motivation on the part of the people toward education, after lower levels of education have ceased expanding.

b) Medicine, dentistry and pharmacy are the university departments where there is the most visible shortage of facilities to meet student entrance demands. In other fields of study applicants' preferences are not so apparent. Consequently, if the percentage distribution of capacity to accommodate students by fields of study is to be adjusted, a comprehensive examination including a human resources assessment is required for the future.

c) Ninety-five per cent of upper secondary school graduates who wish to go on to higher studies are admitted to universities or junior colleges within two years after graduation. It is not only necessary, therefore, to adopt measures to absorb the accumulated ronin-students into institutions of higher education (taking advantage of the time when application pressure drops) but also to consider how to reduce the number of potential ronin-students in the future. This involves intensifying student guidance in the selection of institutions and fields of study best suited to their abilities, aptitudes and ambitions as well as improving the selection procedures themselves.

d) Since kindergartens and nursery schools, the two pre-school educational institutions in existence in Japan, play mutually complementary roles, it would be advisable to make a rational adjustment of their respective functions. At the same time, one could consider means to correct regional imbalances in the growth of pre-school facilities so that the social demand for infant education and nursing can be met.

e) Since a considerable number of school-age children who are not enrolled in compulsory schools might well benefit from special education and since there are proven regional differences in the proportion of long-term absentees, it would be necessary to consider the question of total enforcement of compulsory education.

f) It is necessary not only to evaluate the unique functions that are being fulfilled by miscellaneous schools and to take measures furthering their development, but also to consider the extent to which such vocational training as is acquired at miscellaneous schools at the present time might be introduced into the curriculum of formal school education. The role to be played by formal school education in the future should be examined in the light of recurrent popular demand for such specialised training.

B. SOCIETY'S DEMAND FOR EDUCATED MANPOWER AND SCHOOL GRADUATES

I. Variations in the Employment Situations of School Graduates by Region, Industry, Occupation and Sex

1. Increase in the Number of School Graduates

The numbers of graduates from upper secondary schools, junior colleges and universities increased by 120 per cent, 130 per cent and 60 per cent respectively during the ten-year period 1957-1967. There were no marked changes in the proportions of graduates from general education courses in upper secondary schools, from home economics courses in junior colleges, and from departments or faculties of law, political science, economics and commerce in the universities, being 60 per cent, 40 per cent and 40 per cent respectively.

2. Increase in the Numbers of Female Graduates

The percentages of female graduates showed the following changes during the same period:

a) In upper secondary schools the average percentage increased only slightly from 43 per cent to 48 per cent. But the percentage in the courses in general education and commerce rose rapidly from 48 per cent to 53 per cent, and from 33 per cent to 57 per cent respectively, exceeding in fact the percentage of male graduates.

b) In junior colleges the percentages of females increased further from 62 per cent to 82 per cent.

c) In universities, the average percentages of females increased slightly from 14 per cent to 17 per cent. In literature and teacher training departments, however, the proportions showed rapid increases from 29 per cent to 49 per cent and from 36 per cent to 52 per cent respectively. Thus, female graduates from these two fields also tend to exceed male graduates, as in the case of home economics, pharmacy, nursing and arts.

3. Increase in Graduates of Private Schools

The proportions of graduates from private upper secondary schools, junior colleges, and universities increased from 18 per cent to 33 per cent, from 84 per cent to 90 per cent, and from 48 per cent to 72 per cent, respectively, from 1954 up to 1967.

In the universities, 87 per cent of students in humanities and social sciences and 58 per cent of science and engineering students graduated from private institutions.

4. Graduates who went on to Higher Levels of Education

The proportions of graduates who went on to higher levels of education increased markedly during the last ten years: in the general education courses of upper secondary schools (23 to 33 per cent), in the science departments of universities (17 to 23 per cent) and in the engineering departments of universities (3 to 10 per cent). In other courses or departments more than 95 per cent of the graduates joined the economically active population.

5. Employment Situations of Graduates from Each Level of Education

As a result of the considerable change in the total number of graduates and in the overall distribution as mentioned above, employment rates at the time of graduation of the economically active population (excluding those who went on to higher levels of education) for the last ten years developed as shown in Figure I.B.1(1). The number of graduates from any level of education has changed in keeping with economic fluctuations. These tendencies, however, have not resulted in improving or aggravating the employment situations of graduates of all levels of education to any considerable extent. The absolute number of employed graduates during the same period showed a big change at all levels of education as is shown in Figure I.B.1(2). This indicates that a certain balance has been maintained between the structure and qualifications of the working population and manpower requirements.

6. Employment Situations by Field of Study

Employment rates of graduates (excluding those who went on to higher levels of education) from each level of education, show the following tendencies.

a) In upper secondary schools, employment rates of graduates from general education and homemaking courses are much lower than employment rates of graduates from technical, commercial and agricultural courses. It should be noted, however, that approximately one-third of unemployed graduates from general education courses are ronin-students, who are waiting for another chance to be admitted to higher levels of education.

b) In junior colleges, there are distinctive differences in the employment rates between vocational courses such as industry, teacher training, agriculture, law, political science and economics, and general courses such as literature and home economics.

c) As for universities, employment rates are quite high even for the departments of law, political science, economics and commerce, not to mention the science and engineering departments. For literature and home economics, the rates are very low as these fields contain a high percentage of women students.

7. Employment Situations by Occupation

Occupations of employed graduates from each level of education changed as follows during the ten years from 1957 to 1967:

a) Employment of lower secondary school graduates decreased in "agriculture and forestry" (20 per cent to 6 per cent and in "selling" (11 per cent to 6 per cent), and increased in "skilled production processes" (48 per cent to 63 per cent) and in "services" (8 per cent to 13 per cent).

b) Employment of upper secondary school graduates decreased in "agriculture and forestry" (12 per cent to 4 per cent) and increased in "skilled production processes" (19 per cent to 26 per cent).

c) Employment of junior college graduates decreased in "professional and technological" occupations and is on a gradual increase in "clerical occupations" and "selling".

d) Employment of university graduates decreased in "clerical occupations" (43 per cent to 31 per cent) and increased in "selling" (6 per cent to 19 per cent).

8. Relationship between Occupations and Fields of Study

In considering the cross-classifications of occupations of employed graduates in relation to their fields of study, the following evaluations can be reached as to the qualitative aspects of employment.

Figure I B.1(1)

EMPLOYMENT RATES OF NEW GRADUATES WHO DID NOT PROCEED TO HIGHER LEVELS OF EDUCATION, BY SCHOOL LEVEL

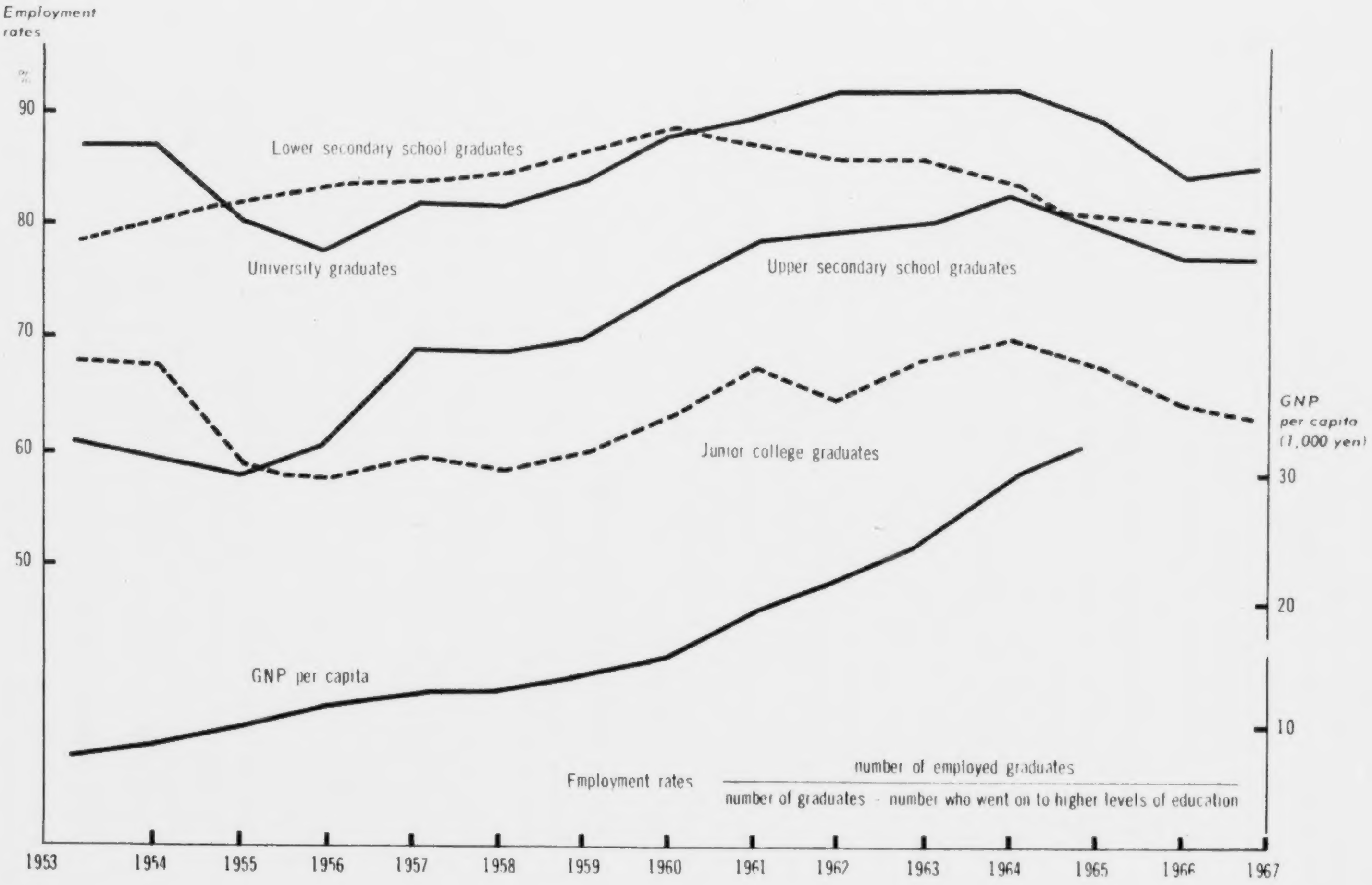
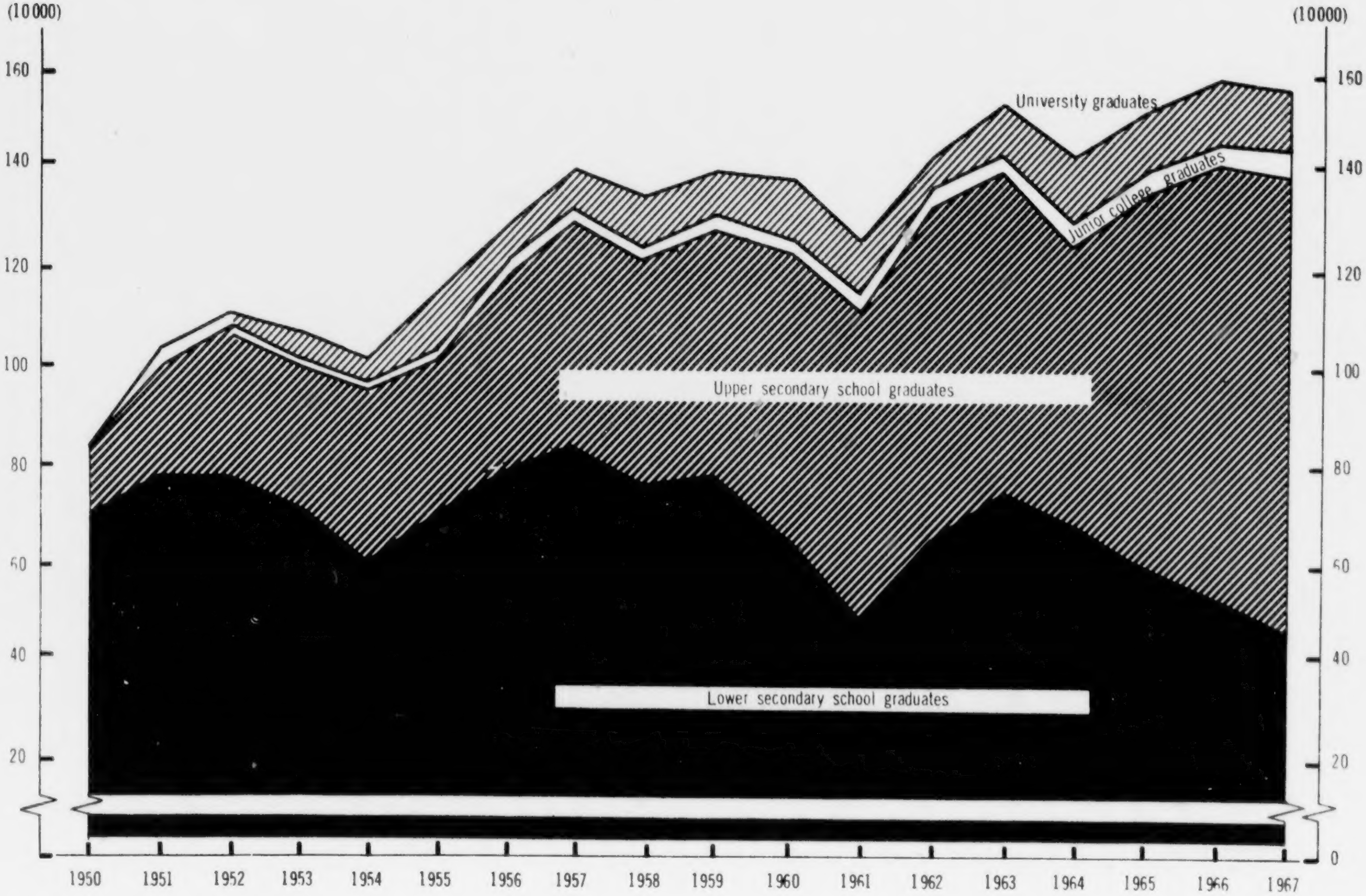


Figure I B 1(2)

NUMBER OF NEW GRADUATES EMPLOYED, BY SCHOOL LEVEL



a) Most graduates from the technical courses of upper secondary schools entered employment in the "skilled production processes" while graduates from agricultural and fishery courses who entered employment in "agriculture and forestry" or in "fishing" were small in number. A considerable number of graduates from agricultural and fishery courses entered employment in "skilled production processes". Graduates from general education courses, commercial courses and homemaking courses tend to enter into "clerical occupations", "selling" and "skilled production processes".

b) The majority of graduates from engineering, nursing and teacher training departments of junior colleges entered employment in the "professional and technological" occupations. On the other hand, most of the graduates from literature and home economics courses, which constitute the largest percentage of junior college graduates, entered employment in the "clerical occupations".

c) Approximately half of the graduates from university departments of literature, most graduates from the departments of law, political science, economics and commerce, and 20 per cent of the graduates of agriculture and home economics departments entered employment in "clerical" and "selling" occupations. In other departments or fields, however, 80 to 90 per cent found their employment in "professional" and "technological" occupations.

9. Regional Mobility of Lower and Upper Secondary School Graduates

In 1954, 14 per cent of lower secondary school graduates who were employed and 16 per cent of employed upper secondary school graduates were working away from their home prefectures. These percentages, however, increased to 32 per cent and 28 per cent respectively in 1967. This shows the increasing mobility of lower and upper secondary school graduates. These situations, roughly viewed for 11 regions in the whole country, can be summarised as follows:

a) Tokyo, Aichi, and Keihanshin have high concentration rates of labour (total number of graduates employed in the region/total number of employed graduates from the region), while Tohoku, Sanin, Shikoku and South Kyushu have low rates, (cf. Figure I.B.2). These tendencies became especially marked for lower secondary school graduates in 1967.

b) Those regions whose fixing rates of labour (total number of graduates employed within their home regions/total number of employed graduates from the region) are high, also have high concentration rates in general. But the fact that the fixing rates in almost all regions decreased in 1967 indicates the increasing mobility of labour within Japan.

c) The regions whose self-supplying rates of labour (total number of graduates employed within their home region/total number of graduates employed in the region) are high, should necessarily have low concentration rates. In the four regions, i.e. Saitama - Chiba, Gifu - Mie, Shiga - Nara - Wakayama, and Okayama - Hiroshima - Yamaguichi, however, the self-supplying rates decreased in 1967 in spite of an increase in the concentration rate of labour, due to the decrease in the fixing rates.

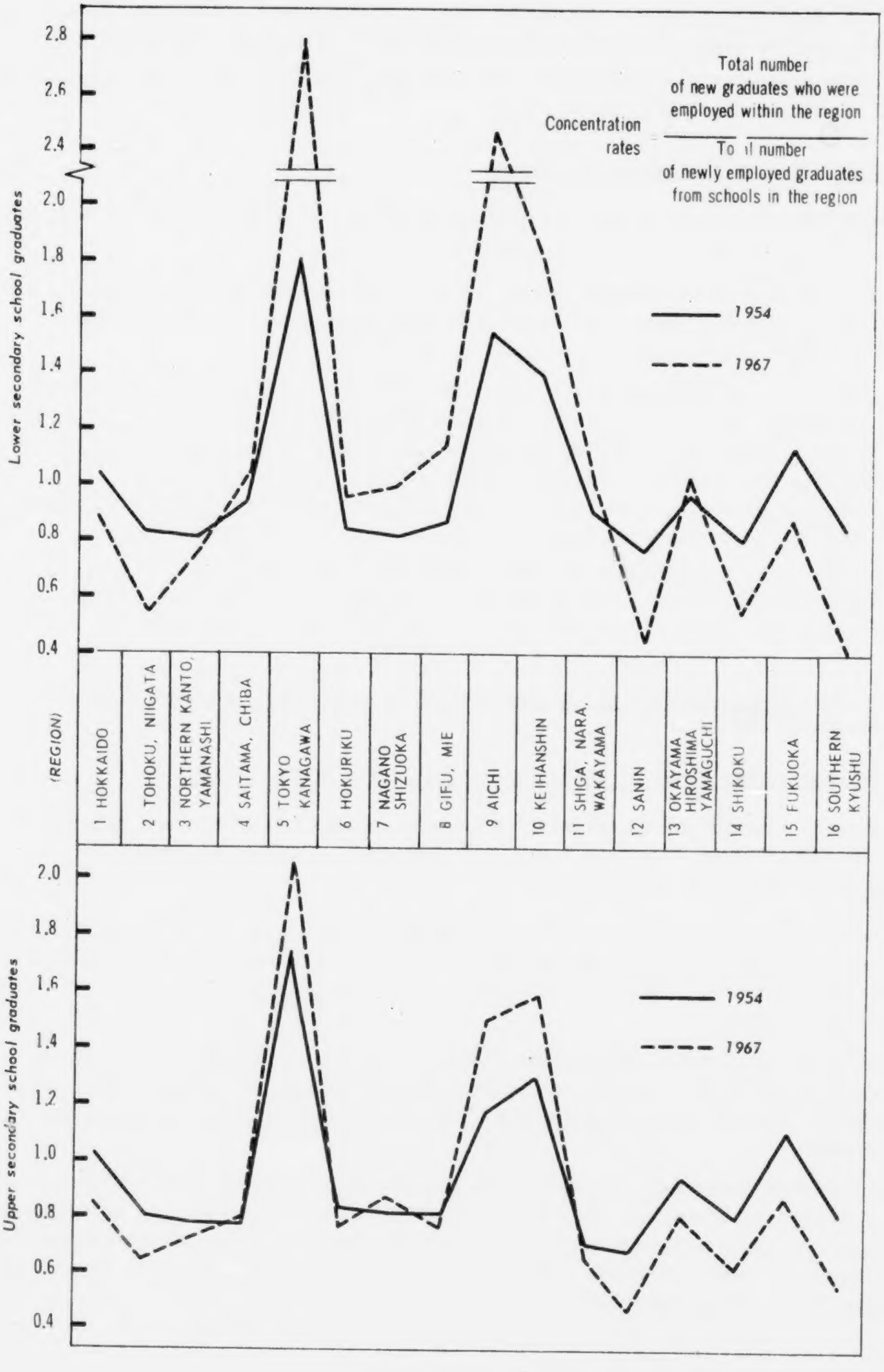
10. Characteristics of Employment of Female Graduates by Occupation

The characteristics of the employment of female graduates by occupation, in comparison with that of male graduates, are as follows:

a) Female graduates from lower secondary schools increased during the recent ten years in "clerical" occupations (75 per cent to 85 per cent), "selling" (42 per cent to 53 per cent) and "transportation and telecommunication" (11 per cent to 43 per cent). On the other hand,

Figure I. B.2

CONCENTRATION RATES OF NEW GRADUATES EMPLOYED, BY REGION
(FOR 1954 AND 1967)



they showed a marked decrease in "agriculture and forestry" (46 per cent to 35 per cent) and "fishing" (19 per cent to 11 per cent).

b) Female graduates from upper secondary schools increased markedly in "manual labour" (12 per cent to 31 per cent) and "skilled production processes" (13 per cent to 22 per cent) as well as in "clerical" occupations (59 per cent to 78 per cent), "selling" (44 per cent to 53 per cent), and "transportation and telecommunications" (9 per cent to 22 per cent).

c) Female graduates from universities are on the increase in "clerical" occupations (4 per cent to 10 per cent) and "services" (10 per cent to 21 per cent).

11. Evaluation of Employment Situations

To summarise, employment situations during the preceding ten years can be evaluated as follows:

a) As a result of a favourable rate of economic growth, the rapid increase in the number of upper secondary school, junior college and university graduates has been absorbed into the labour force without serious friction on the whole.

b) There are a few problems still to be examined, like, for example, the employment situations for specific fields of study: the employment rates in the general and homemaking courses of upper secondary schools, in literature and home economics courses in junior colleges, and in literature, home economics and agriculture in the universities, are very low; a considerable number of graduates from these courses or departments are employed in occupations that would appear better suited to graduates from other courses or fields of study.

c) The increase in the number of female graduates and their growing incorporation into the labour market is remarkable. The percentage of female clerical personnel shows a particularly rapid rise.

II. Changes in the Structure of the Educational Achievement of Workers by Industry, Occupation and Sex

1. Increase in the Level of Educational Attainments of the Working-age Population

The level of educational achievement of the working-age population (15 to 64 years of age) in Japan, as is shown in Figure I.B.3, has been rising rapidly since the Meiji Era. The main characteristics have been as follows:

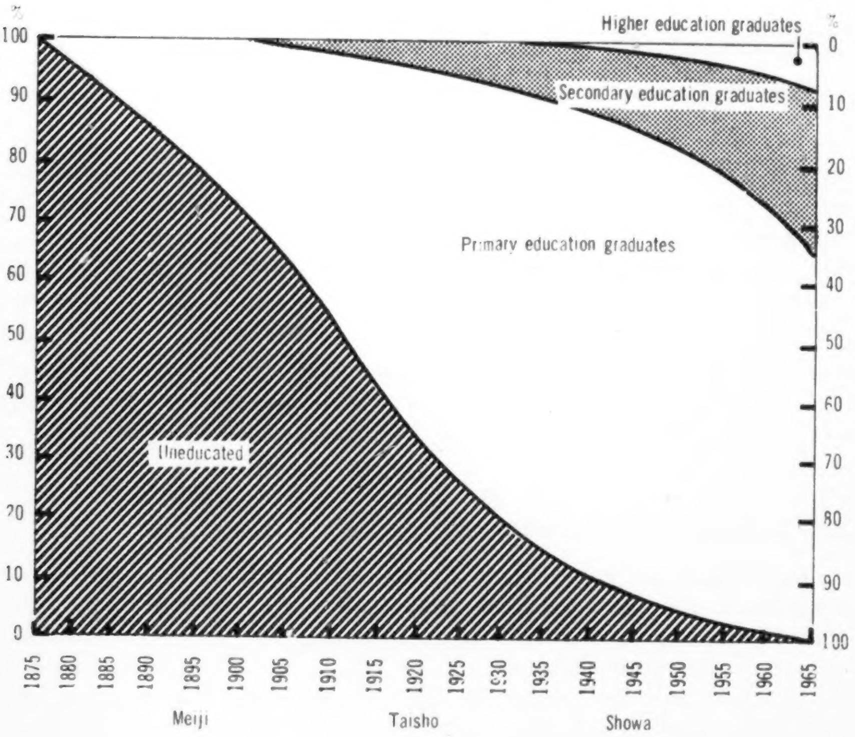
a) The working-age population has approximately trebled over the last ninety years. The proportion of this population who had not been enrolled in schools dropped to less than 50 per cent at the end of the Meiji Era, about 40 years after the promulgation of the Government Education Order of 1872.

b) The proportion of the working-age population graduating from elementary school has been falling from its peak of 81 per cent before the war, while the proportion of secondary school graduates has been increasing rapidly. That of higher education graduates has also been on the increase.

c) The present percentage of the working population graduating from secondary schools corresponds to that of elementary school graduates 65 years ago (Meiji 33). The increase in the percentage of higher education graduates after the war corresponds to that of secondary school graduates recorded during the fifteen years from the ninth year of the Taisho Era to the beginning of the Showa Era (1920-1935).

Figure I B.3

PERCENTAGE DISTRIBUTION OF GRADUATES FROM DIFFERENT SCHOOL LEVELS IN THE WORKING-AGE POPULATION (15 TO 64 YEARS OF AGE)



2. Changes in the Numbers of Employed Persons by Industry and by Occupation

The labour participation rates of the working-age population have been on a general decline since 1965. The percentage of employed persons in "agriculture and forestry" fell by half, and the percentages for "wholesale and retail trade, finance and insurance occupations" and for "services" and "manufacturing" increased. The percentage distribution by occupation has also changed, numbers in "agriculture and fishery" fell while the numbers employed rose in the "clerical" occupations, and the "skilled production processes" followed by a rise also in the numbers employed in the "service industries" and in "transportation and telecommunications".

3. Changes in the Distribution of Employed Persons in each Occupation by Educational Attainments

The distribution of employed persons by educational attainment shows the following tendencies:

a) Amongst the occupational categories of "skilled labourers", "labourers", "technicians" and "sales personnel", more than half of the employed persons are elementary school graduates. Amongst "clerical workers" and "technologists" more than half of the employed persons are secondary school graduates. Among "research workers" and "other professional workers", graduates of higher education make up over 50 per cent. "Managers and officials" rank somewhere between those occupational categories.

b) The percentage of secondary school graduates showed a considerable increase in all occupations during the four years from 1959 to 1963. There have been no changes, however, in the basic educational qualifications of the employed persons in each of the four groups of occupational categories.

4. Forecasting Manpower Requirements

Forecasting future manpower requirements was attempted in the Plan to Increase Science and Engineering Students which was formulated in accordance with the National Income Doubling Plan covering the ten-year period from 1960 to 1970. The most difficult problem encountered in this forecasting was the extent to which actual distribution of employed persons in each occupation by educational attainment should be adjusted. There was also the problem that graduates from university departments other than science and engineering would be oversupplied to a considerable extent.

In actual fact, the distribution of the employed population, by occupational category and by educational attainment, changed from 1959 to 1963 as is shown in Figure I.B.4.

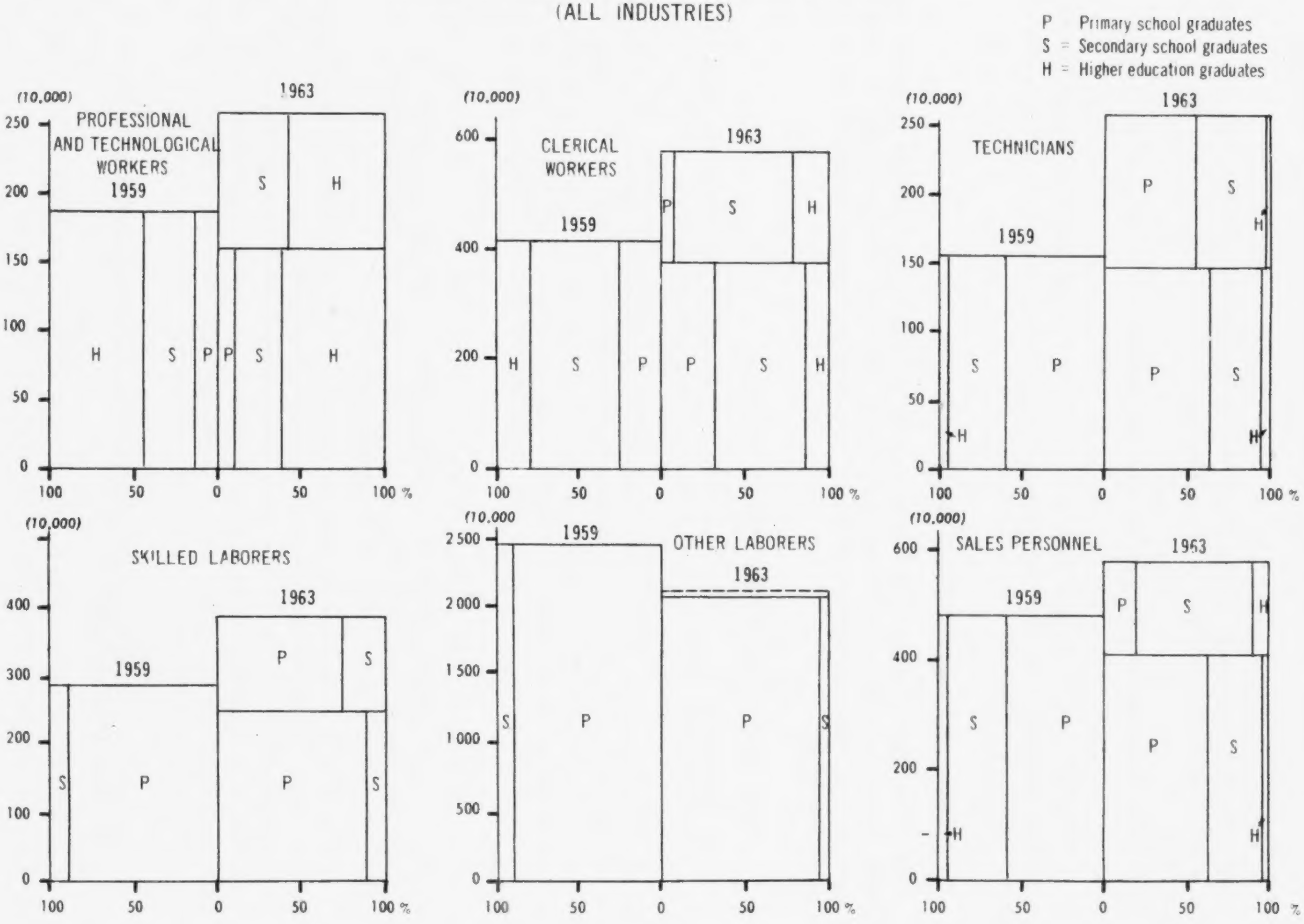
Examination of the educational attainments of the labour force added during these four years to replace employees lost and to meet the expansion of employment indicates that secondary school graduates have been supplanting elementary school graduates. But the supply of higher education graduates has barely maintained its past distribution within the employed population. It is also indicated that there has not been such occupational choice as to cause certain jobs to be oversupplied by persons with excessively high educational attainments.

5. Forecasting the Manpower Requirements of the Future

Using the present methods it has been difficult to forecast manpower requirements correctly taking into account the following factors:

Figure I B.4

DISTRIBUTION OF EMPLOYED GRADUATES IN EACH OCCUPATIONAL CATEGORY, BY EDUCATIONAL ATTAINMENT IN 1959 AND 1963 (ALL INDUSTRIES)



(A comprehensive re-examination is to be made when the results of the 1965 "Survey of Educational Attainments of the Employed Population", which used an improved method, have become available.)

a) That any assessment of the labour supply should take into account not merely new graduates but also the remainder of the potential working population who are currently unemployed.

b) That it is necessary to anticipate the movement of the active labour force between occupations.

c) That the plans designed to modify the structure of the educational attainments of the employed population in each occupation, and to be implemented by industry itself in the future, should be taken into consideration.

6. Changes in the Proportion of Female Employees

The percentage of women employed in each occupation is illustrated in Figure I.B.5. Although the overall average percentage of female employees is decreasing, the proportions of women in "professional and technological" occupations (mainly teachers) and in "selling" are on the increase.

7. Women Entering and Leaving the Labour Market

It is interesting to note that the length of female employment tends to be short. Figure I.B.6 shows the following with regard to this situation:

a) A comparison of the rates of those entering and leaving employment for each age group in the female population indicates that the number of females entering employment decreases markedly between the ages of 20 and 30. It shows, furthermore, that although the number of female workers increases somewhat between the ages of 30 and 50 when some return to work, it begins to fall off again afterwards because few women seek employment beyond the age of 50.

b) As many as 30 to 40 per cent of female employees under 30 years of age leave work every year. The percentage decreases to approximately 20 per cent in the 30-year-old and over age group. The average length of service is 2.5 to 3 years for females under 30 years of age and about 5 years for females 30 years old and over.

c) Comparison of employment rates of females in 1955 with those of 1965 for each age group shows that the percentage of females entering employment between the ages of 20 and 24 increased from 36 per cent to 55 per cent; the percentage of female employees continuing to work in the 30 to 34-year-old age group increased from 12 per cent to 19 per cent and in recent years 22 per cent of women are still employed till the age of 45 due to the increased number of those who return to work after the age of 35.

8. Evaluation of Changes in the Distribution of the Employed Population by Educational Attainments

To summarise the above analyses, the changes in the distribution of the employed population by educational attainments can be evaluated as follows:

a) The rapid increase in the level of educational attainments of the working-age population and the rapid decrease in the percentage of those employed in primary industry, contributed to the increasing flow of new graduates into secondary and tertiary industries and, at

Figure I.B.5

PROPORTION OF FEMALE EMPLOYEES IN THE TOTAL NUMBER EMPLOYED, BY OCCUPATIONAL CATEGORY

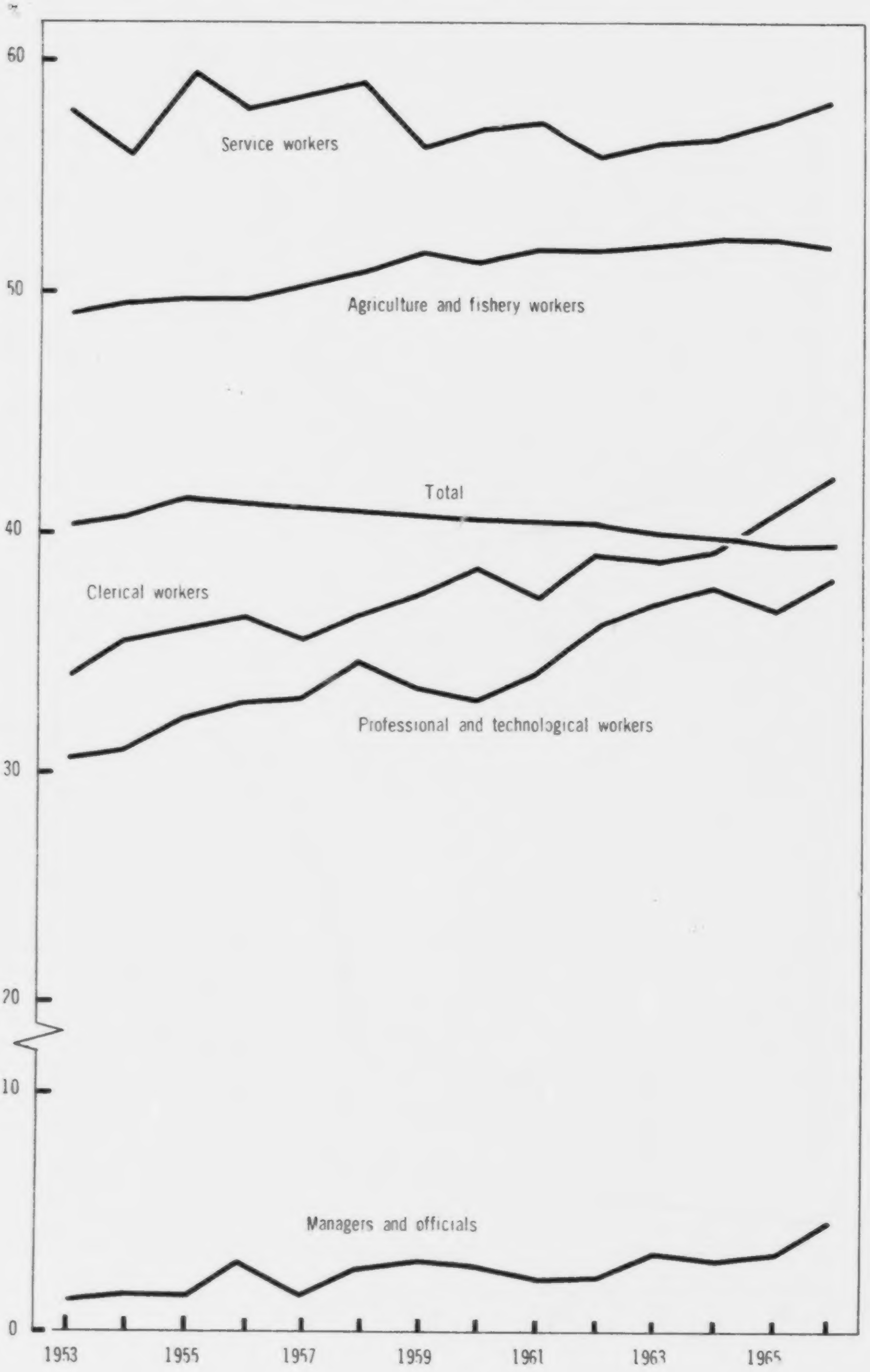
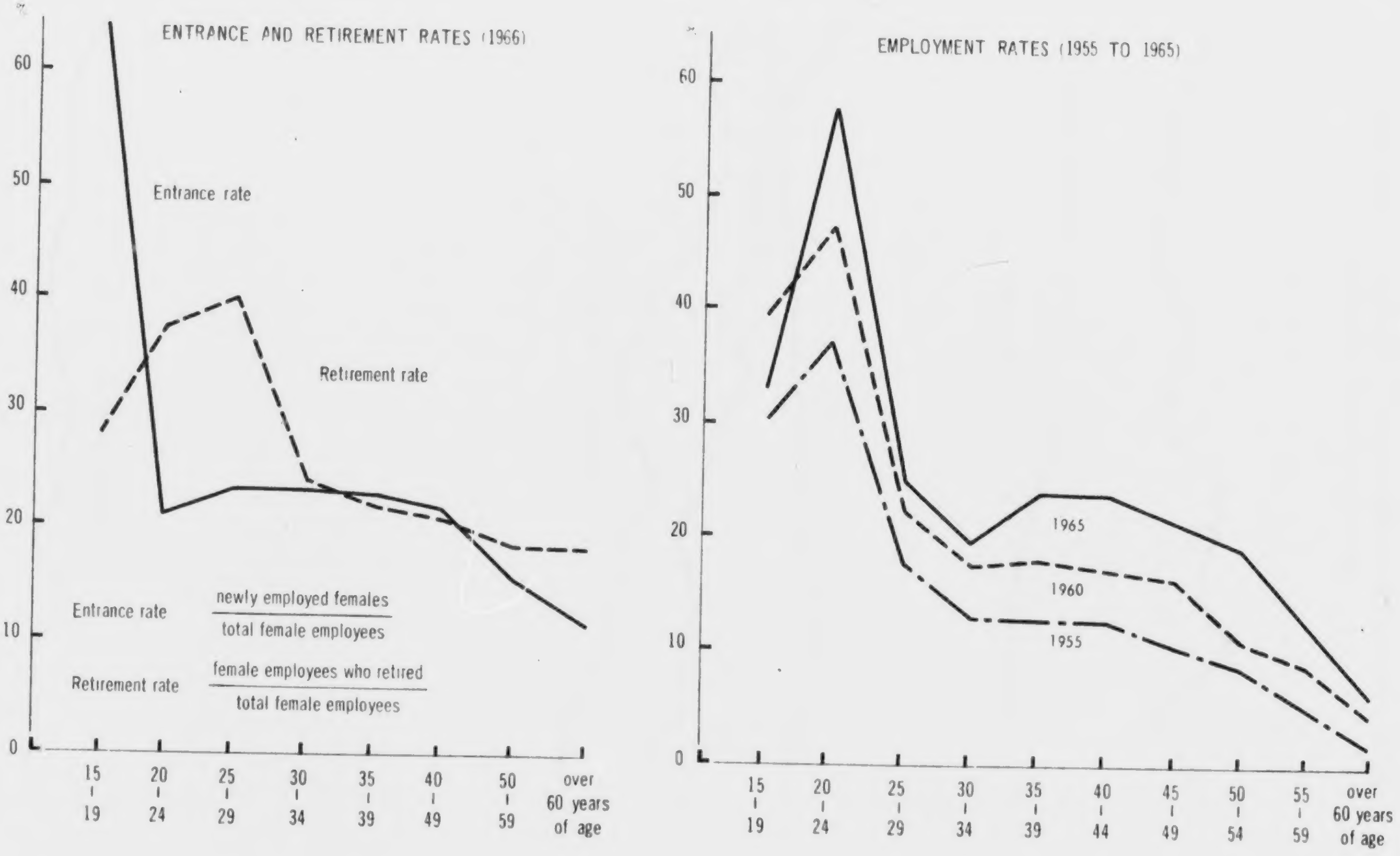


Figure I B 6

EMPLOYMENT RATES AND RATES OF ENTERING AND RETIRING FROM EMPLOYMENT OF WOMEN, BY AGE GROUP



the same time, raised the level of educational attainments of the employed population in these industries as a whole. One major change so far has been the replacement of elementary school graduates by secondary school graduates. The increase in the percentage of graduates from higher education levels is less distinct. There do not seem to be serious gaps between occupational categories and educational attainments in these fields.

b) It is to be noted that there is a marked increase in the number of female workers meeting the expanded labour market, that they have tended to stay longer in employment in recent years, and that more women are returning to work after 35 years of age.

III. Starting Salaries for Graduates

1. A Narrowing of Differences in Starting Salaries between Graduates from each Educational Level

Starting salaries tend to increase at higher rates for graduates from the lower education level. The ratios of starting salaries for graduates from higher levels of education to starting salaries for lower secondary school graduates (an average of both sexes) (difference index) are shown in Figure I.B.7. They began to decrease rapidly in 1954 and the indices now stand at 1.2, 1.3 and 1.6 respectively for upper secondary, junior college and university graduates. The differences between male and female graduates are widening slightly for upper secondary school and junior college graduates. It should be noted, however, that the differences between male and female university graduates are being reduced.

2. Differences in Starting Salaries in Enterprises of Varying Sizes

The differences in starting salaries are closely related to the size of the enterprise. Differences between small and medium-sized enterprises and large enterprises consisting of more than 500 employees began to narrow in 1955, becoming next to nothing by 1964 and 1965. But the differences began to widen again more recently for all graduate levels except the university level.

3. Relationship between Changes in the Distribution of the Employed Population by Educational Attainments and Differences in Starting Salaries

The diminishing differences in starting salaries between graduates from each level of education, shown in Figure I.B.7, seem to be the results of the prevalent supply-demand relationships. The "means of difference indices" weighted by percentage distribution of employed persons by level of education completed remained approximately the same from 1954 to 1967 as is shown in Table I.B.8.

This means that changes in the distribution of the employed population by the level of education completed affects the rate of increase in starting salaries in an inverse proportion and thus contributes to narrowing the differences in starting salaries by educational attainments.

IV. The Training of Professional Personnel (Researchers, Teachers, Physicians, Dentists, Health Nurses, Hospital Nurses)

1. Academic Research Workers and Graduates from Graduate Schools

From the statistics relating to academic research workers and the graduate schools which are the main institutions for training academic research workers in our country, the following tendencies can be pointed out:

Figure I.B7

INDICES OF STARTING SALARIES

FOR GRADUATES FROM HIGHER LEVELS OF EDUCATION ON THE BASIS OF THOSE FOR LOWER SECONDARY SCHOOL GRADUATES

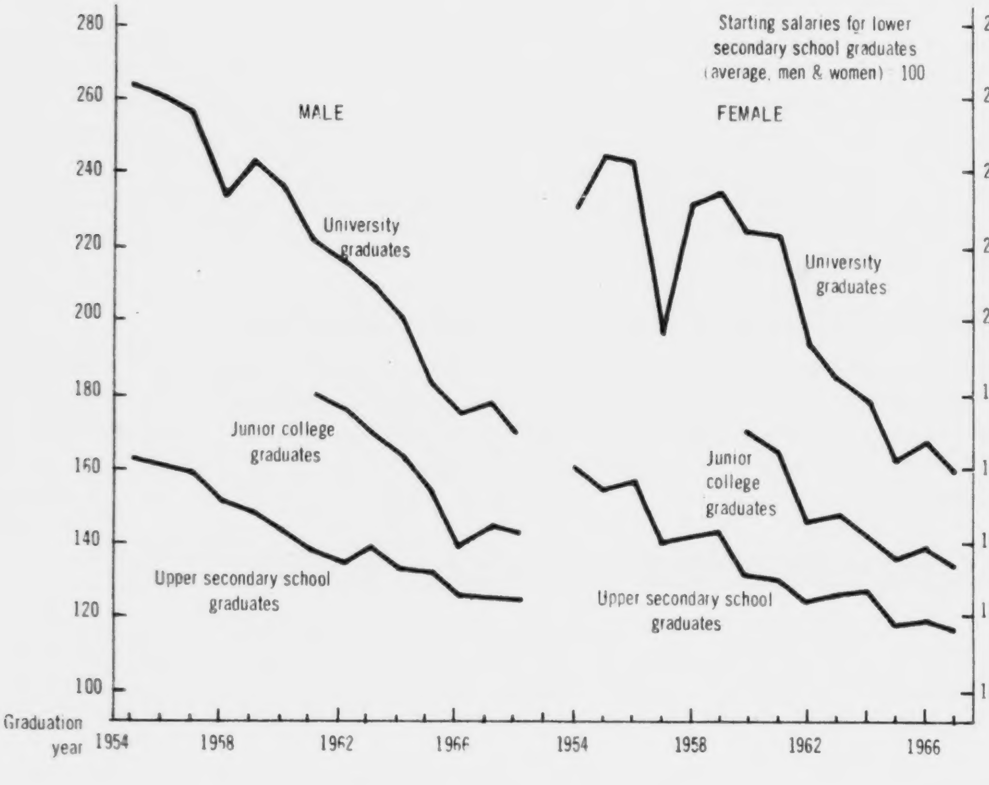


Table I.B.8

PROPORTIONS OF THE TOTAL NUMBER OF THE NEWLY EMPLOYED OCCUPIED BY GRADUATES FROM DIFFERENT LEVELS OF EDUCATION AND INDICES OF THE DIFFERENCE OF THEIR STARTING SALARIES

Graduation year	Lower secondary school graduates		Upper secondary school graduates		Junior college graduates		University graduates		Weighted indices of starting salaries (3)
	% (1)	indices of starting salaries (2)	% (1)	indices of starting salaries (2)	% (1)	indices of starting salaries (2)	% (1)	indices of starting salaries (2)	
1954	59.9	1.00	32.2	1.61	1.41	(2.05)(4)	6.43	2.63	1.31
1955	62.1	1.00	30.3	1.58	1.35	(2.00)(4)	6.23	2.60	1.29
1956	62.1	1.00	30.4	1.57	1.27	(1.94)(4)	6.16	2.56	1.28
1957	61.9	1.00	33.7	1.45	1.23	(1.88)(4)	6.26	2.33	1.23
1958	58.3	1.00	35.7	1.45	1.25	(1.83)(4)	6.76	2.44	1.26
1959	56.5	1.00	35.7	1.43	1.16	(1.77)(4)	6.70	2.37	1.25
1960	49.8	1.00	41.7	1.34	1.30	1.71	7.26	2.21	1.24
1961	10.5	1.00	49.4	1.31	1.66	1.65	8.44	2.15	1.26
1962	45.4	1.00	45.2	1.31	1.60	1.46	7.73	2.09	1.23
1963	49.7	1.00	40.8	1.30	1.73	1.49	7.77	2.00	1.21
1964	49.2	1.00	39.4	1.29	2.32	1.43	9.03	1.85	1.20
1965	41.8	1.00	46.8	1.21	2.38	1.34	9.05	1.74	1.17
1966	32.6	1.00	56.4	1.21	2.12	1.36	8.89	1.76	1.19
1967	28.1	1.00	59.5	1.20	2.87	1.31	9.53	1.69	1.19

Notes

1. "Proportions" means percentages of the total number of the newly employed which are occupied by graduates for each level of education.
2. "Indices of starting salaries" means the indices of starting salaries for graduates from each level of education, taking those for lower secondary school graduates (average, men and women) as 100. For upper secondary school graduates, average salaries for men and women were used. Average salaries for women and those for men were used for junior college graduates and university graduates, respectively.
3. "Weighted indices of starting salaries" show the means of indices of starting salaries weighted by percentages in the column of "proportions".
4. Figures in brackets are estimates by extrapolation.

a) The number of research workers in universities and research institutions (including institutions sponsored by private industry) increased 1.9 times (118,000 to 230,000) between 1960 and 1967. The number of research workers in the universities has only risen 2.2 times (60,000 to 130,000) but has come to constitute a growing percentage of all research workers throughout the country. But the percentage of research workers in the natural sciences has not varied, remaining at a level of 69 per cent.

b) On the other hand, the total number of graduates from all graduate schools increased 2.3 times, and the number of graduates in natural sciences from graduate schools increased 3.1 times during the same period. This increase is expected to continue in the years to come for the tendency is now for an ever-growing number of four-year university graduates to go on to graduate schools.

c) The proportions of the number of graduates from graduate schools to the total number of research workers by academic discipline is as shown in Figure I.B.9. If graduate schools are to be the principal agency for supplying research workers, and if the average length of productive activity of a research worker is supposed to be 30 years, the proportion should be at least 3 per cent so as to replenish the natural drop in the present number. In addition, if research activities and higher education are to be expanded, it is necessary now to examine further the question of how many research workers in science and engineering should be trained at graduate schools.

2. Supply and Demand of Teachers and the Number of Graduates from Teacher Training Departments

From the statistics relating to school teachers and graduates from teacher training departments, the following can be pointed out:

a) The number of teachers of each level of education showed great changes in relation to demographic changes in the number of school-age children and pupils and to the increase in the percentages of graduates going on to higher levels of education. The educational attainments of teachers also have changed as is shown in Table I.B.10.

b) Of new graduates who became elementary, lower secondary and upper secondary school teachers, about 90 per cent, 60 per cent and 20 per cent respectively were graduates from teacher training departments.

When the rapid increase in enrolments ended, those percentages began to decrease. It is to be noted, however, that the percentage of graduates from teacher training departments who enter the teaching profession is also decreasing. This implicitly suggests that the decrease in the percentage of newly employed teachers, graduates of teacher training departments, is not due to a shortage of total supply but should be attributed to the disequilibrium of supply and demand in each region.

c) The ratio of teacher supply and demand is affected not only by new graduates entering the field but by extensive turnover as well as retirement. As figure I.B.11 shows, most elementary and lower secondary school teachers are recruited or retire at certain predictable ages. They remain within their professions, for the most part, but they tend to move when middle aged. On the other hand, recruitment and retirement ages among upper secondary school teachers vary widely and changes are made earlier. Recruitment and retirement ages among kindergarten teachers differ even more widely.

Figure I. B.9

REPLENISHMENT RATE OF RESEARCH WORKERS
BY ACADEMIC DISCIPLINE

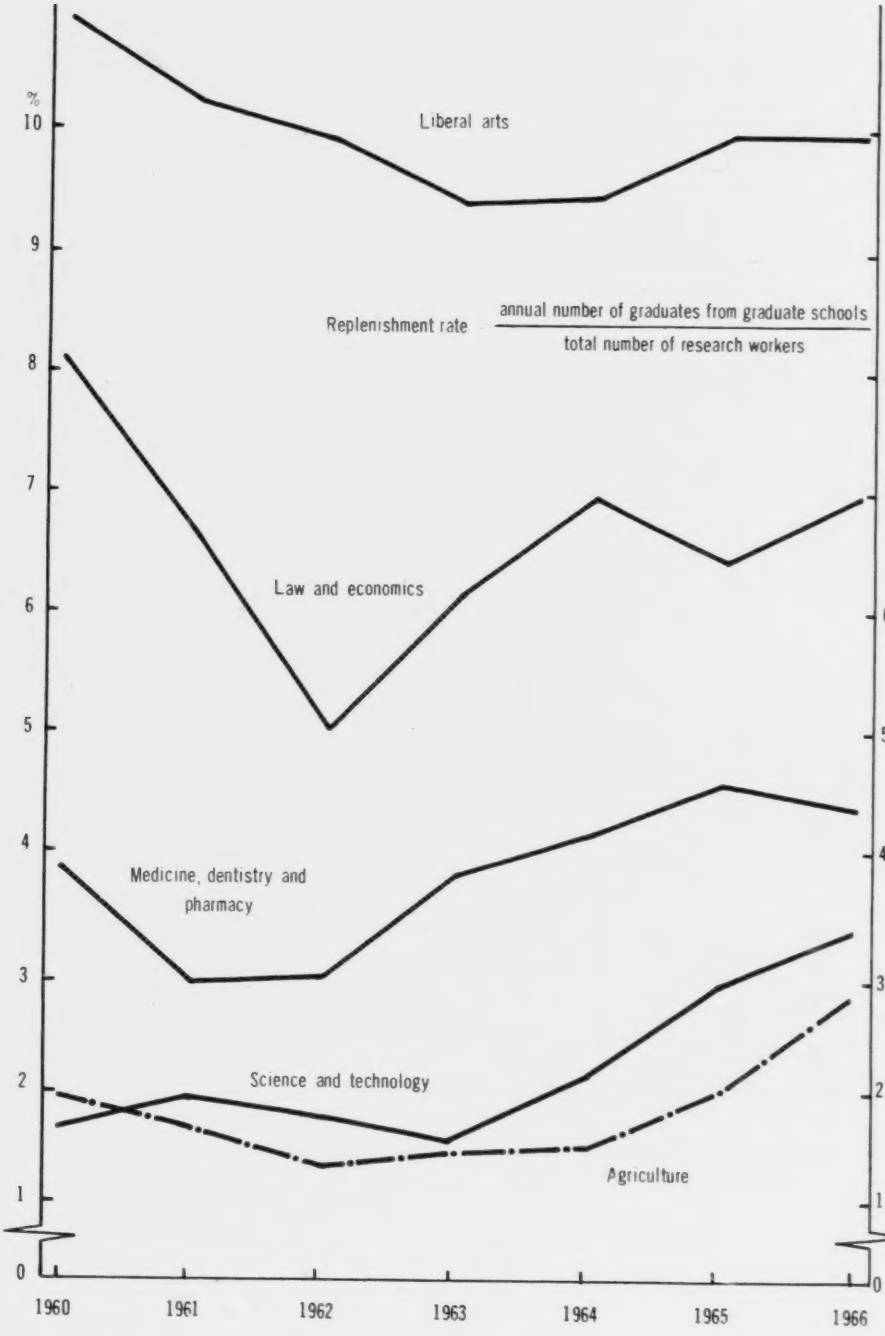


Table I.B.10

PERCENTAGE DISTRIBUTION OF SCHOOL TEACHERS BY EDUCATIONAL ATTAINMENTS

	New system universities		Old system universities	Normal schools. etc.	Junior colleges, etc.	Upper secondary schools & old-system middle schools	Others
	Teacher training	Others					
Kindergarten teachers							
1947	--	--	1.6	9.2	9.0	72.8	7.4
1950	--	--	2.5	14.3	12.5	65.5	5.2
1953	0.6	0.6	2.6	7.2	11.9	49.3	27.8
1956	1.0	1.3	3.0	7.5	14.6	45.5	27.1
1959	6.3	1.8	2.3	7.4	20.4	39.8	22.0
1962	2.1	2.3	1.9	6.5	31.0	33.4	22.8
1965	2.3	5.5	--	--	55.9	36.3	--
Elementary school teachers							
1947	--	--	0.3	46.1	2.2	46.6	4.8
1950	--	--	0.3	46.8	3.2	45.2	4.0
1953	11.0	0.8	0.6	40.9	3.8	31.5	18.4
1956	18.1	2.4	0.6	37.1	4.9	31.5	12.4
1959	18.2	3.0	0.6	34.6	5.5	24.9	13.2
1962	26.2	3.0	0.5	32.2	7.8	26.3	12.0
1965	22.1	4.1	--	--	56.0	26.8	--
Lower secondary school teachers							
1947	--	--	6.0	45.3	23.6	15.3	9.8
1950	--	--	4.5	50.4	25.4	17.2	2.5
1953	5.8	2.8	4.9	35.3	24.0	13.0	14.2
1956	12.7	9.4	4.6	28.8	23.3	9.9	11.3
1959	18.8	11.1	4.3	24.5	23.3	6.9	11.1
1962	26.1	15.4	3.2	20.9	21.0	5.5	7.9
1965	22.6	22.2	--	--	50.2	5.0	--
Upper secondary school teachers							
1947	--	--	--	--	--	--	--
1950	--	--	21.5	23.6	46.4	5.8	2.7
1953	1.4	4.7	23.0	15.7	43.0	--	12.2
1956	3.2	12.8	21.2	16.8	38.5	3.6	4.5
1959	4.5	22.9	18.3	13.0	34.4	2.3	4.7
1962	9.1	25.2	15.7	12.5	31.1	3.6	2.8
1965	18.2	51.2	--	--	28.2	2.4	--

3. Physicians and Dentists

An international comparison of the proportions of physicians and dentists to the total population and infant death rates is made in Figure I.B.12(1). Physicians do not seem to be scarce in Japan. There are, however, regional differences in their availability (cf. Figure I.B.12(2)). In view of the fact that there is a negative correlation of approximately 0.37 between the proportion of physicians to population and infant death rates in each prefecture the unbalanced regional distribution of medical personnel constitutes a serious problem.

4. Health Nurses, Hospital Nurses and Nurses in Pre-school Institutions

Health nurses, hospital nurses and nurses in pre-school institutions are mainly trained by miscellaneous schools and the number of nurses thus trained is rapidly increasing. As a result, the proportion of hospital nurses to beds and the number of infants per nurse is gradually decreasing. But health nurses have scarcely increased in number. This may be attributable to other factors.

5. Problems for Further Examination Emerging from the Above Study

a) The level of educational attainment of the working-age population has been raised considerably since the end of the last war and graduates have entered employment without serious friction. It is necessary, however, to undertake a more comprehensive study of the role that the expansion of education has played in the social, economic and cultural development of the nation, and to forecast the effectiveness and the limitations of education in the future.

b) It is now necessary to work out the priorities to be given to general and vocational education and the significance of specialisation in education, not only from the point of view of manpower requirements but also from the standpoint of providing an adequate foundation for an individual's whole life.

c) In the light of increasing inter-regional mobility among lower and upper secondary school graduates seeking employment outside their home prefectures, it is necessary to take manpower planning of wider regions into consideration in making a local educational plan.

d) Improvement in the method of forecasting manpower requirements is called for. Long-range predictions are also essential of the percentage distribution of graduates by field of study, taking into account the tendency for increasing numbers of women to seek employment.

e) It is necessary to consider the number of graduates from graduate schools for each field of study in the light of the predicted expansion of higher education in the future and with the training of a sufficient number of academic research workers in mind.

f) It is necessary to consider how to help adjust the supply of and demand for teachers and other professional personnel between the regions.

Figure I.B 11

RECRUITMENT, RETIREMENT AND TRANSFER OF TEACHERS, BY AGE GROUP, AS OF 1965

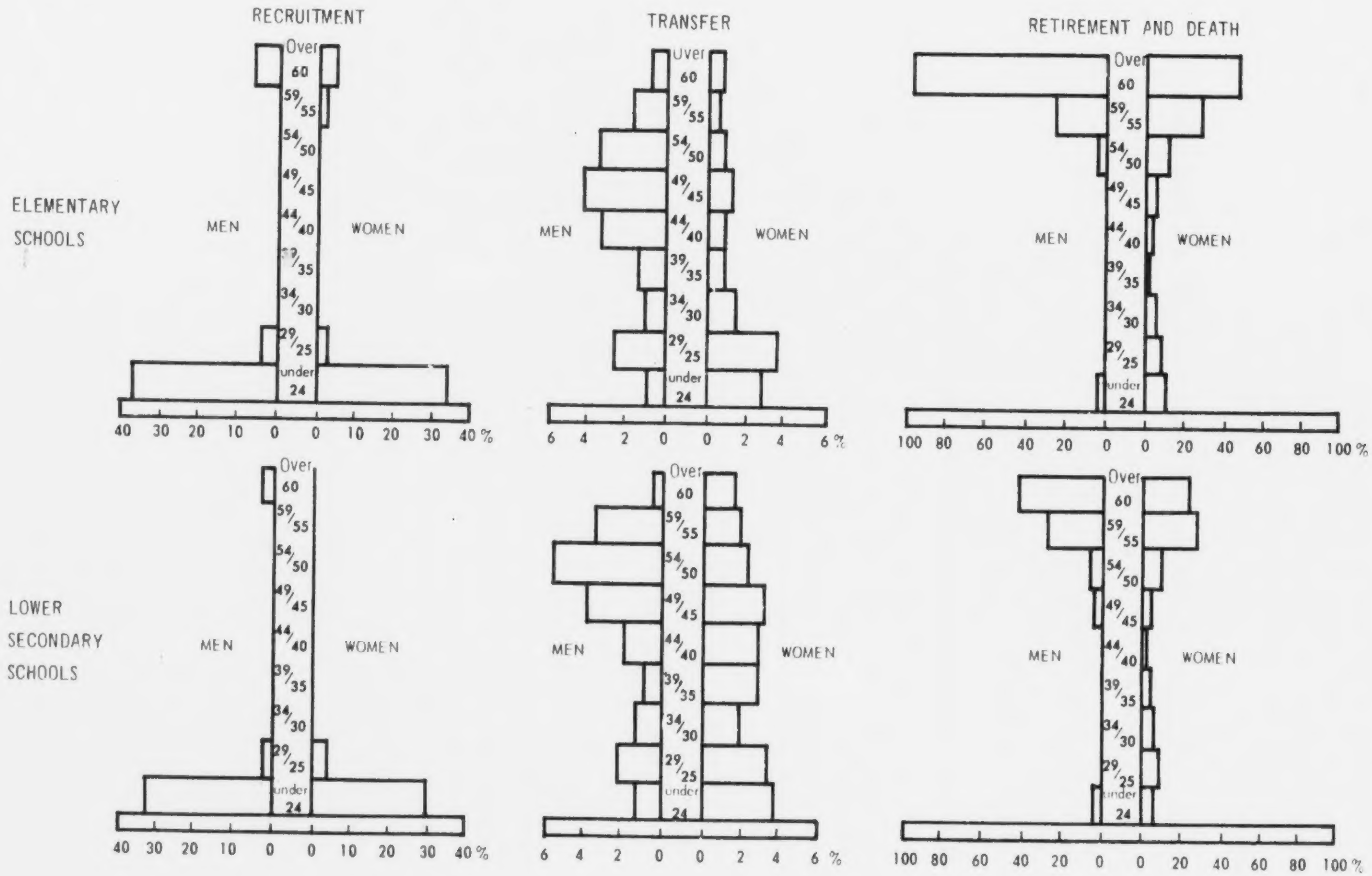


Figure I. B.11 *(continued)*

RECRUITMENT, RETIREMENT AND TRANSFER OF TEACHERS, BY AGE GROUP, AS OF 1965

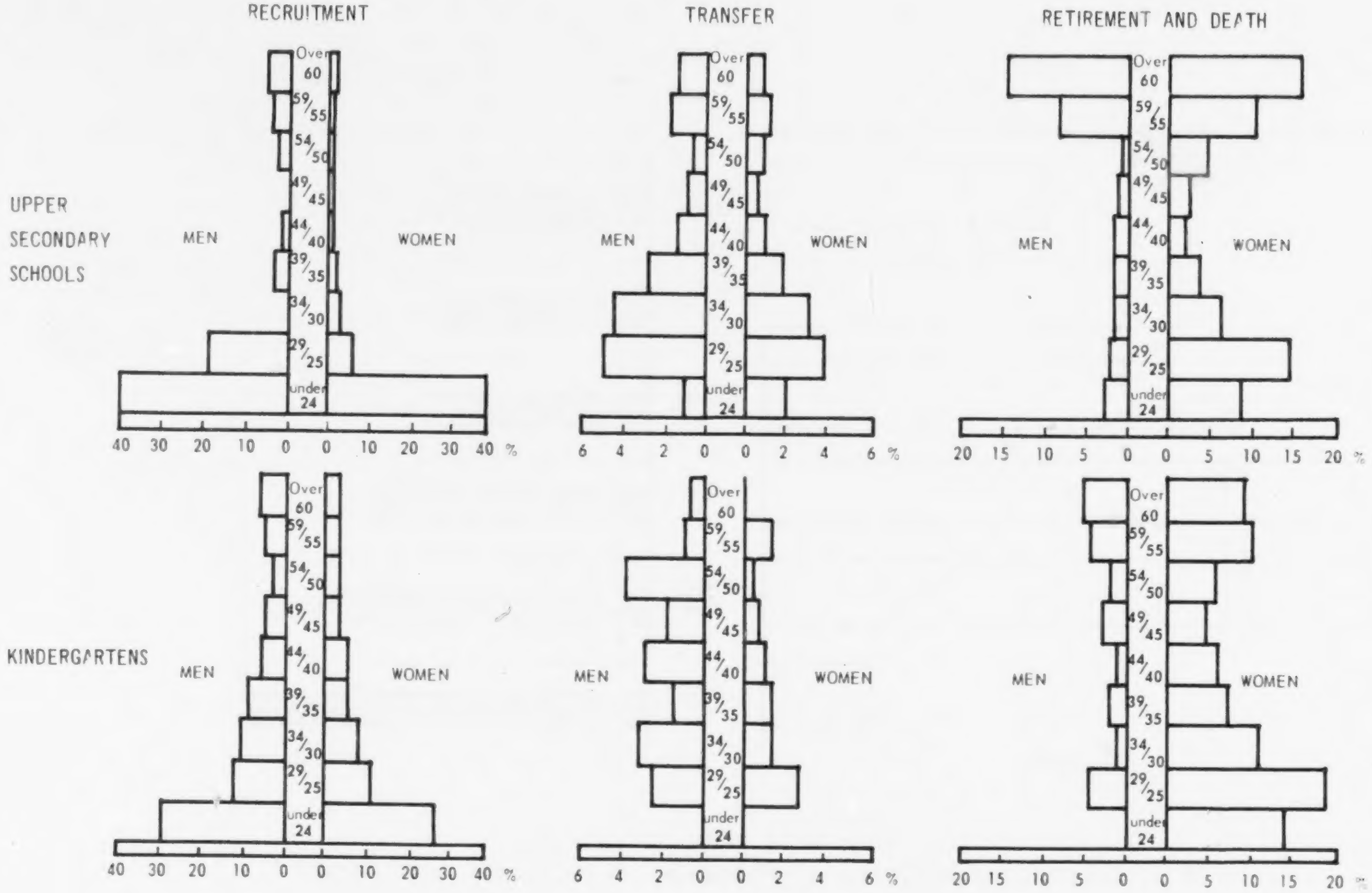


Figure I. B.12(1)

INTERNATIONAL COMPARISON OF THE NUMBER OF PHYSICIANS AND DENTISTS PER 10,000 OF TOTAL POPULATION

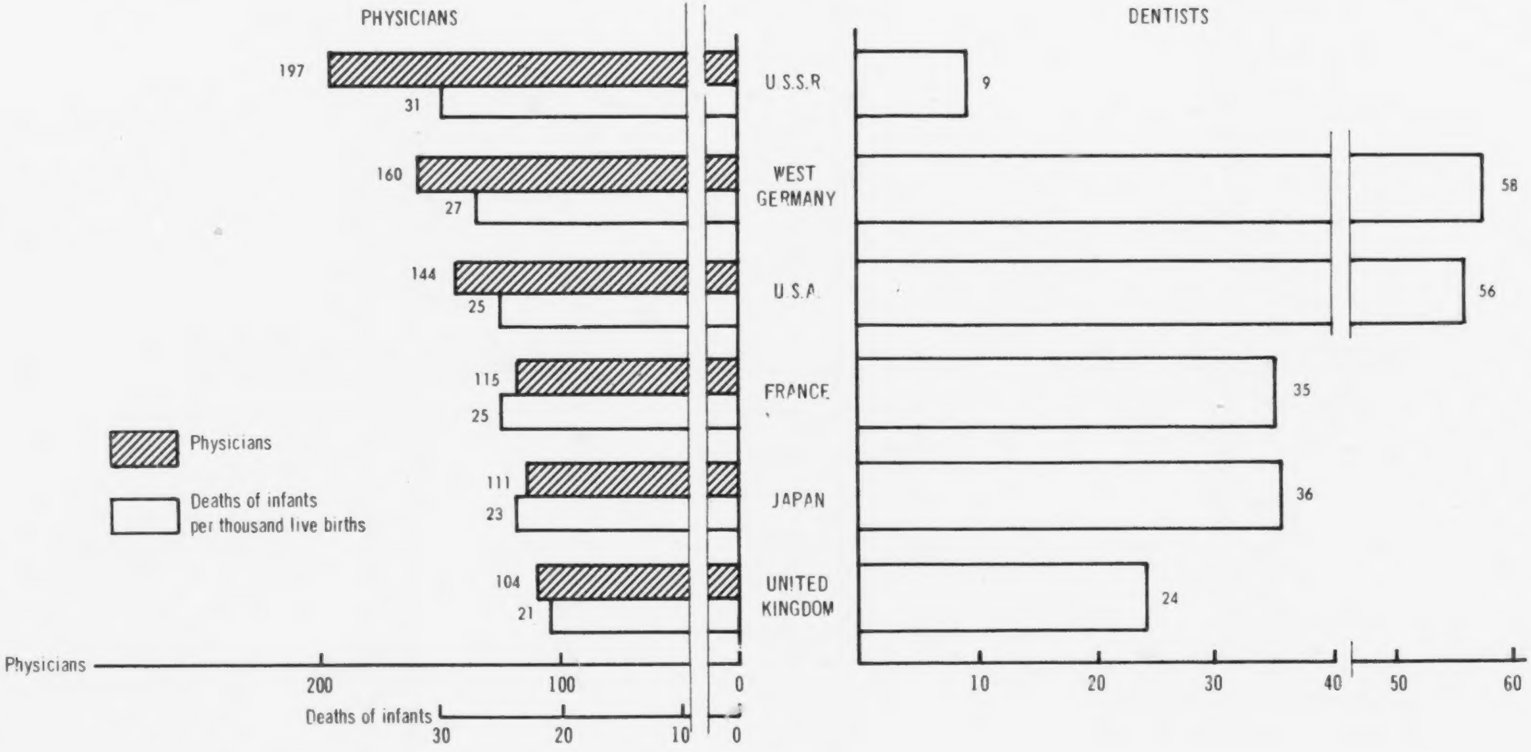
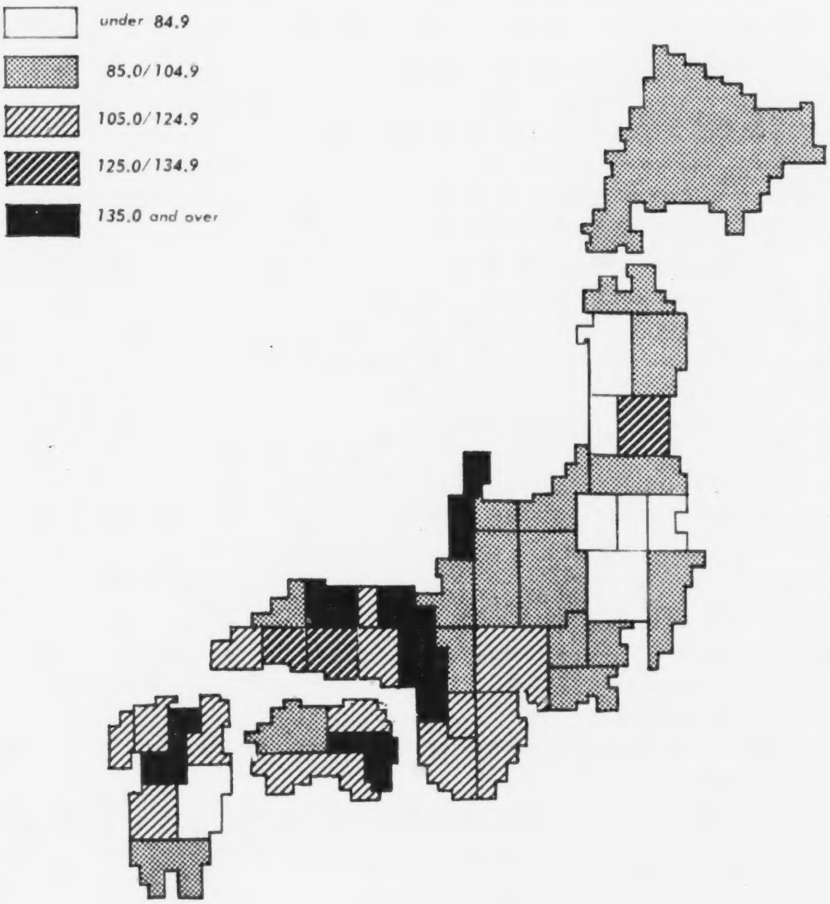


Figure I. B.12(2)

NUMBER OF PHYSICIANS PER 10,000 OF POPULATION, BY PREFECTURE



under 84.9
85.0/104.9
105.0/124.9
125.0/134.9
135.0 and over

C. THE SOCIAL STATUS OF EDUCATIONAL ACHIEVEMENT

I. The Extent to which People Recognise the Significance of School Education

1. Achievement Motivation in Education

The public opinion poll which was conducted by the Prime Minister's Office in July 1968 indicated the following levels of education that people 20 years of age and over (to be referred to as "parents" hereafter) wish their children (or children they expect to have in the future) to complete. It also indicated some of the reasons behind these expectations.

a) Referring to the highest level of education to be completed by children, more than 20 per cent of the parents answered, "I don't know"; 52 per cent wanted university education for boys, 14 per cent for girls; 24 per cent wanted upper secondary education for boys and 44 per cent for girls; 14 per cent also desired junior college education for girls (Figure I.C.1). Almost all the parents wanted at least secondary education both for their sons and daughters and a sizeable number wanted higher education.

b) Twenty to 40 per cent of the parents who were graduates from elementary schools in the old system or lower secondary schools in the new system, 60 to 70 per cent of the parents who were graduates from middle schools in the old system and upper secondary schools in the new system, and 60 to 90 per cent of the parents who were graduates from universities in both old and new systems, junior colleges and technical colleges, wanted higher education for their sons. Higher education for daughters was desired by 10 per cent of the parents who were graduates from compulsory education, 30 to 40 per cent from secondary education and 60 to 70 per cent from higher education. For sons and daughters alike, the percentage of parents desiring higher education rose in close correlation with the parents' own educational level.

c) Parents in big towns and cities wanted a higher level of education for their sons and daughters than did parents in other areas. Similar findings were obtained from the opinion poll conducted by NHK in 1967.

d) The reasons why the parents wanted higher education were: for sons, the acquisition of "professional knowledge and skills" and "culture"; for daughters, primarily "culture" (Figure I.C.2). The opinion poll by NHK also showed similar results. It was to be noted, however, that in the NHK poll, many parents wanted university education for their daughters to make them "good housewives".

e) Most of the parents wanted university education for their sons "as far as possible" or "by all means", while a considerable percentage wanted university education for their daughters "as far as possible" or "if possible".

Approximately half of the parents were prepared to "bear the costs" "up to a certain extent" for both sons and daughters. A comparatively large number of parents were resolved "to go to all lengths" to send their sons to university, while a considerable percentage of parents would send their daughters to university "even if they had to bear sizeable costs", or "if economic burdens were not too great". This meant that parents tended to have different ambitions for sons and daughters.

2. Evaluation of Educational Attainments

The results of the two polls mentioned above indicate that the public regards ability or merit in educational attainment in the following ways:

a) In answer to the question whether or not educational qualifications are valued more highly than real ability in society, approximately half of the respondents replied "I am often inclined to think so", and a little less than 30 per cent answered, "I sometimes think so". There are no big differences in answers from respondents with different educational qualifications.

b) In answer to the question, "How will the relationship between educational qualifications and merit evaluation be changed in the future?", 27 per cent were of the opinion that "University degrees will be regarded more highly than ability", while 39 per cent thought that such situations "will gradually be resolved" (Figure I.C.3). This difference of opinion is related to the educational level of the respondents. The percentage of graduates from compulsory education levels who held the former opinion is nearly the same as that of graduates from compulsory education who held the latter opinion. On the other hand, 10 per cent of graduates from higher education held the former opinion and 60 per cent the latter opinion. It seems that those with higher educational attainments are more apt to think that formal educational qualifications will be increasingly devalued, than those with lower educational qualifications. It is to be noted, however, that approximately one-fourth think, irrespective of their own educational qualifications, that not merely university degrees in general but rather degrees obtained from first-rate universities will come to be valued to an increasingly greater extent.

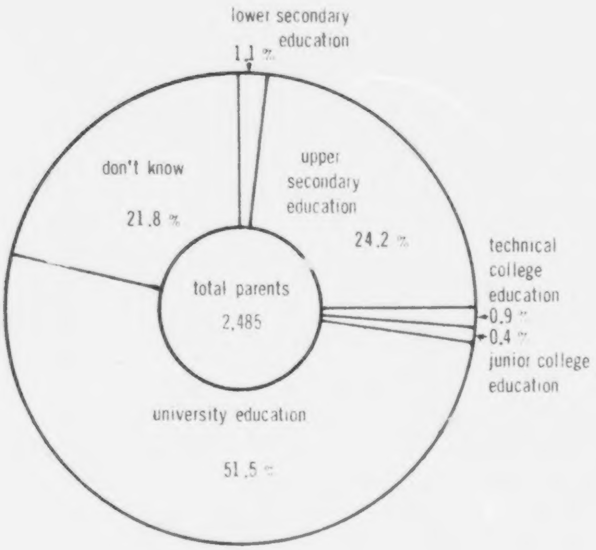
c) As "the most important conditions for promotion", "effort" was stressed by the largest number of respondents, followed by "ability required by work" and "educational attainments". Those with higher educational attainments are more apt to think that "ability required by work", is the most important, than those with lower educational attainments. Those who think that you cannot be recognised in Japan without good educational qualifications, even if you have ability, are twice as many as those who think that you can be recognised without a good educational record. Those who think that if you are to become really able, you should have a fundamental scholastic background from a higher level of education, are three times as many as those who think that it is better to get an earlier start in life and acquire practical knowledge and techniques. It seems that educational qualifications are regarded as useful both nominally and practically (Table I.C.4).

3. Differences in Income and Manpower Mobility Attributable to Education

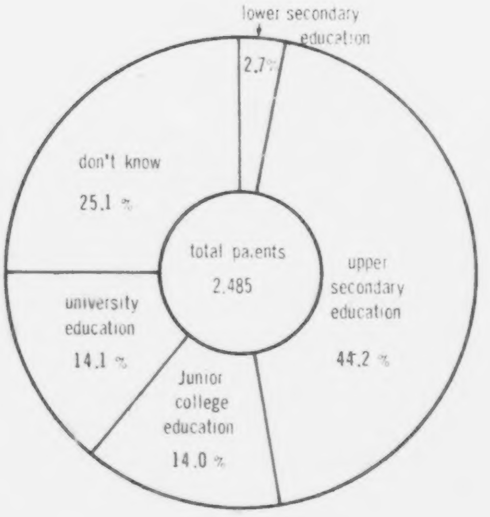
According to estimates made by the Research Section of the Ministry of Labour, on the basis of results of the "Basic Survey on the Structure of Earnings" conducted in 1966, the life-long income flows of the employed graduates from universities, upper secondary schools and lower secondary schools are in the proportions of 100, 75 and 61. A comparison of these estimates with those made in the past shows that differences in the life-long income between employed graduates from different levels of education have narrowed. This tendency is expected to continue in the future. An analysis of the research results relating to the occupational mobility between generations shows that the percentage of those from families of manual or agricultural labourers who entered employment in non-manual jobs is higher among those who attended school for a longer period, and that more than half of those from families of non-manual occupations who have low educational attainments have changed to other strata. This demonstrates clearly that school education in our country has been a strong promotional force in manpower mobility and has contributed to the modernisation of Japanese society since the Meiji Era. The public's orientation toward maximum educational achievement must also be attributed to this.

Figure I.C.1

LEVELS OF EDUCATION THAT PARENTS WANT THEIR CHILDREN TO COMPLETE



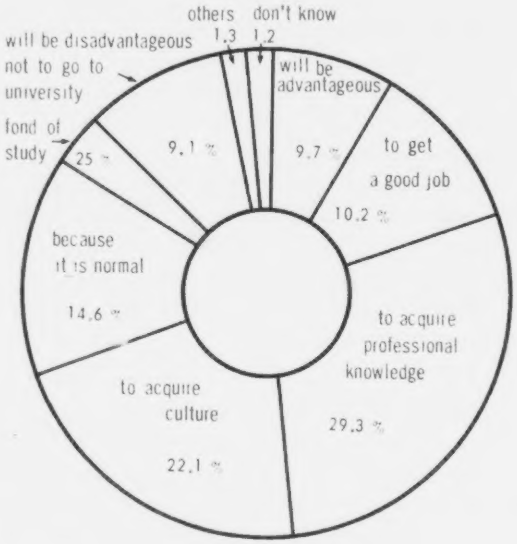
BOYS



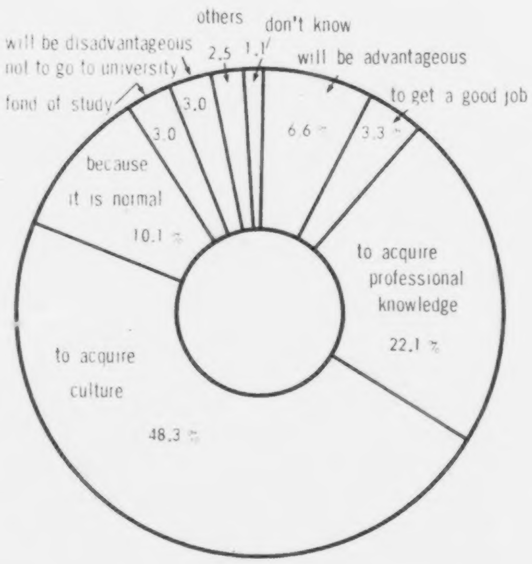
GIRLS

Figure I.C.2

REASONS WHY PARENTS WANT UNIVERSITY EDUCATION FOR THEIR CHILDREN



BOYS



GIRLS

Figure I.C.3

HOW WILL THE RELATIONSHIP BETWEEN EDUCATIONAL QUALIFICATIONS AND THE EVALUATION OF MERIT CHANGE IN THE FUTURE?

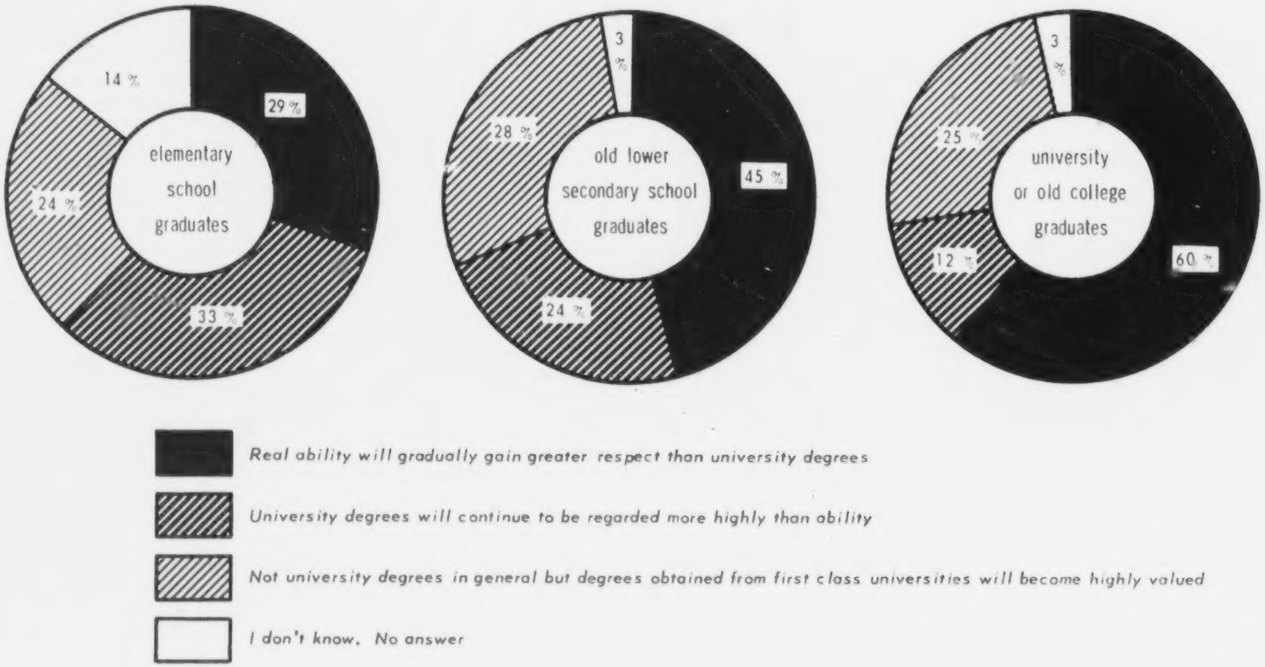


Table I.C.4

EDUCATIONAL BACKGROUND AND REAL ABILITY

(Unit: % 2,458 respondents in total)

To gain respect for one's ability	Today in Japan one can become socially mobile on the basis of real ability, even if one's parents were not wealthy or of upper class origin					
On educational background	Before starting work it is best to obtain good educational qualifications	It is best to start work early and gain real practical knowledge whilst at work	Sub-total	I cannot generalise or I do not know	I don't think so	I don't know
Your abilities can be recognised even without a good school background	6.2	3.1	9.3			
Your abilities cannot be recognised without a good school background	15.5	3.1	18.6			
I cannot generalise or I don't know	6.2	2.6	8.8			
TOTAL	27.9	8.8	36.7	14.0	33.6	15.7

II. The Extent to which Knowledge Acquired in School is Utilised after Graduation. The Kind of Knowledge and Skills most Sought After

1. The Utility of what has been Learned at School

The results of the NHK survey show that the learning and skills acquired at school tend to be considered after graduation in the following lights:

a) More than half of those polled answered that school education contributed to the acquisition of "fundamental knowledge and a certain way of thinking" as well as "professional knowledge". There were also some who answered that "educational attainments were useful", or that "school education proved nothing". Those with higher educational attainments put a higher value upon the utility of school education as a source of "professional knowledge".

b) That which was acquired at the highest level of education completed was thought to be utilised in their present work and in everyday living as follows: "greatly" by 23 per cent of those polled, "to a certain extent" by 50 per cent, and "scarcely" or "not at all" by 23 per cent.

There were more university or old college graduates answering that what was learned at the highest level of education completed proved "extremely" useful than those who replied "only to a certain extent".

2. The Need for Learning and Technical Skills

The results of the opinion poll conducted by the Prime Minister's Office indicate the following tendencies in the extent to which learning and technical skills required in the working world are being sought:

a) As is shown in Table I.C.5, 67 per cent of the population 20 years old and over "sometimes want" more education. This percentage, however, differs between graduates of varying levels of education. The highest is for upper secondary school graduates (90 per cent) and the lowest for elementary school graduates (50 per cent). There are also differences corresponding to age groups. The highest is for young people in their twenties and thirties (80 per cent). The percentages are also high for clerical technical workers (90 per cent) and managerial and professional personnel (80 per cent) (Table I.C.5).

b) In reality, however, only 17 per cent of the population 20 years old and over are studying out of necessity. But the percentage is generally higher among those who have attained higher levels of education; 50 per cent among university graduates and only 10 per cent among compulsory education graduates. There are about twice as many men studying than women and, of these, men in their thirties account for the highest numbers. Approximately half are studying to acquire "professional knowledge and techniques required in the world of work". Other major reasons given are: "to improve their general culture", "hobbies", "to acquire knowledge and technical skills in order to improve family life", etc. These pursuits are carried out through "reading" for the majority, followed by "through the formation of groups among friends and colleagues" "via television and radio" and by "attending classes", in that order.

c) The number of those receiving education by correspondence courses authorised by the Ministry of Education increased from about 220,000 in early 1964 to about 500,000 at the end of 1967. Courses in subjects such as calculating scales, statistics, and computer programming are developing rapidly along with calligraphy, business management and English. The English courses are particularly popular among teenagers and a strikingly large number of them are upper secondary school graduates. An overwhelmingly large number of those who are taking computer or management courses are persons in their twenties or thirties, gainfully employed and university graduates.

Table I.C.5

DEMAND FOR FURTHER EDUCATION. RESPONSES TO THE QUESTION: "DO YOU REQUIRE FURTHER EDUCATION AT PRESENT?"

	Total respondents	I sometimes feel I do	I don't
Total number	2,719	67.4%	24.3%
School background			
Elementary school graduates	1,158	53	41
Lower Secondary school graduates	357	77	20
Old-system lower secondary school graduates	512	75	23
Upper secondary school graduates	394	89	10
University or old-system college graduates	216	82	17
Ages			
20 - 24	204	85	13
25 - 29	339	81	16
30 - 34	374	86	13
35 - 39	356	79	20
40 - 49	559	69	28
50 - 59	477	57	38
60 - 69	267	39	49
70 over	143	15	69
Occupations			
Managerial and professional personnel	101	83	17
Self employed	236	67	31
Clerical and technical workers	344	89	11
Skilled labourers	129	75	21
Simple labourers	295	70	25
Service workers	218	76	19
Farmers	312	61	34
Housewives	816	66	30
No occupation	235	27	60
The others	14	79	21

Note: "I don't know" and "no answer" total 4.3%.

III. The Recruitment and Treatment of Graduates from Each Level of Education

1. Industry's Policy for Recruiting Graduates from Each Level of Education

The analysis and examination of information provided directly by those concerned in industry and the findings of the surveys conducted by economic associations indicate that industries tend to recruit graduates according to the following principles:

a) In industry it seems generally to be considered necessary to recruit graduates from higher education levels, if enterprises are to be modernised. Recently, however, some large-scale enterprises have changed their policy of recruiting upper secondary school graduates and training them within the enterprise, because it is felt that the quality of university graduates has decreased on the whole. The recruitment of lower secondary school graduates is often abandoned, as a matter of fact, because the supply is far less than the demand.

b) In the engineering fields those holding master's degrees are most sought after by large-scale enterprises. Generally speaking, it also seems true that graduates from the engineering departments of universities or of technical courses in upper secondary schools are better treated than graduates of the humanities departments in universities or of the general courses in upper secondary schools.

c) As many as 60 to 70 per cent of enterprises designate or restrict their recruitment to specific universities. This tendency seems to become more marked as the scale of the company involved becomes larger. At the same time the percentage of success in recruitment also seems to be higher in the case of large-scale enterprises. The methods used to designate a university as a recruiting field vary from one enterprise to another. National and well-known private universities are chosen by the largest number of enterprises, followed by universities situated in the same geographical area as the enterprises themselves, the "Tokyo-Big-Six Universities", universities in the Tokyo metropolitan area and the former Imperial Universities. This system of designation is said to have the advantage of helping to "obtain capable manpower of above average ability", to "assess the quantity and quality of applicants to be recruited every year", and to "maintain the quality of applicants", as well as to "deepen mutual understanding between enterprises and schools" and to "rationalise the financial and clerical aspects of recruitment".

d) Graduates from university evening courses were given opportunities to apply for either clerical or technical jobs by approximately 40 per cent of all companies (Table I.C.6). Of these companies, however, only one-fourth actually hired persons in this category. Forty per cent of the companies consider applications by graduates from part-time upper secondary schools and 40 per cent of these companies actually hire them. Female students are considered by only a little less than 40 per cent of companies for clerical jobs and by 20 per cent for technical jobs, but they are actually hired by 70 per cent to 90 per cent of those same companies.

The percentage of companies considering applications from groups of graduates as mentioned above becomes higher as the scale of the companies becomes smaller. The percentage of large-scale companies providing the same opportunities is considerably lower. Recently, however, the percentage of companies considering evening and female students has been increasing.

2. Salary Structures and Educational Attainments

Education is one of the most important criteria on which salary structures in various enterprises are determined. According to the data obtained from the survey on the model wages of each enterprise (by occupation, by educational attainments, and by sex, as well as by the standard of the number of family dependents), the following characteristics can be pointed out:

a) The differences in the average model wages to be paid by each enterprise to employees who are graduates from universities, upper secondary schools and lower secondary schools

Table I.C.6

OPPORTUNITIES OF EMPLOYMENT OPEN TO EVENING STUDENTS AND FEMALE STUDENTS OF UNIVERSITIES AND TO PART-TIME STUDENTS OF UPPER SECONDARY SCHOOLS, AS OF 1967

	Graduates from evening courses of universities					
	Clerical			Technical		
	Number of companies responding	Number of companies offering opportunities to apply to such graduates	Number of companies who actually recruited them	Number of companies responding	Number of companies offering opportunities to apply to such graduates	Number of companies who actually recruited them
Total	505 (100.0)	198 (29.2) (100.0)	47 (23.7)	396 (100.0)	16.3 (41.2) (10.0)	40 (24.5)
Less than 300 employees	83	50 (20.2)	13 (26.0)	62	36 (58.1)	10
300-499	70	32 (45.7)	5 (15.6)	57	27 (47.4)	4 (14.8)
500-599	91	43 (45.7)	16 (37.2)	68	31 (65.6)	8 (25.8)
1,000-2,999	133	46 (34.6)	7 (15.2)	104	45 (43.3)	11 (20.4)
3,000 or more	128	27 (21.1)	6 (22.2)	105	24 (22.9)	7 (29.2)

Note: Data from the survey conducted by the Japanese Federation of Employers.

Table I.C.6 (continued)

	Female graduates from universities					
	Clerical			Technical		
	Number of companies responding	Number of companies offering opportunities to apply to such graduates	Number of companies who actually recruited them	Number of companies responding	Number of companies offering opportunities to apply to such graduates	Number of companies who actually recruited them
Total	508 (100.0)	189 (37.2) (100.0)	167 (88.4)	368 (100.0)	73 (19.8) (100.0)	48 (65.8)
Less than 300 employees	75	24 (32.0)	21 (87.5)	47	11 (23.4)	5 (45.5)
300-499	76	24 (31.6)	19 (79.2)	51	10 (19.6)	5 (50.0)
500-599	97	42 (43.3)	36 (85.7)	71	13 (18.3)	9 (69.2)
1,000-2,999	130	47 (36.2)	40 (85.1)	95	12 (12.6)	7 (58.3)
3,000 or more	130	52 (40.0)	51 (98.1)	104	27 (26.0)	22 (81.5)

Graduates from part-time upper secondary schools

Total	640 (100.0)	270 (42.2) (100.0)	114 (42.2)			
Less than 300 employees	136	70 (51.5)	21 (30.0)			
300-499	98	48 (49.0)	14 (29.2)			
500-599	123	62 (50.4)	29 (46.8)			
1,000-2,999	144	56 (38.9)	31 (29.2)			
3,000 or more	139	38	19 (50.0)			

become wider as the ages of those employees rise. The range over which the average wages are distributed becomes wider as the ages of employees rise. The range is widest for upper secondary school graduates at 40 years of age and over and narrowest for lower secondary school graduates.

b) A comparison of wages paid to lower secondary school, upper secondary school and university graduates in 1962 and 1968 shows that differences in wages by level of education attained by employees were generally narrowed between those years. This tendency is especially noticeable in older age groups.

3. Changes in Academic Fields Studied, by Managerial and Administrative Personnel

The proportion of top management personnel of large-scale enterprises who are graduates in the natural sciences increased from the pre-war 20 per cent to 30 per cent recently. The results from another survey are now available and they show that the proportion of graduates in the humanities and social sciences who have completed economics and business administration courses increased from 40 to 60 per cent.

IV. How the General Public Evaluates Scholastic Achievements and the Personality Development of Graduates

1. Evaluation of Recent Elementary and Lower Secondary School Pupils

The opinion poll mentioned earlier, conducted by the Prime Minister's Office, indicates that the general public evaluates the intellectual, physical, psychological and social development of today's children as follows:

a) Intellectually, today's children are more capable of thinking in a scientific manner, but they are not able to think properly until they really understand scientific principles.

b) Physically, their bodily development and general health is excellent. Their athletic ability is high but they are not very good in those situations in which endurance is called for. They are knowledgeable about their health, they take good care of it and heed the rules for avoiding traffic accidents or drowning.

c) As personalities they are lively and exhilarating. They seem to know how to spend their money wisely. Unfortunately though, they are not good in keeping things in order and they tend to seek immediate satisfaction rather than pursue more worthwhile long-term goals.

d) Socially, though they are very articulate, they do not know how to speak and behave with propriety before others and they fail to take note of what other people are saying. They are very sociable, getting on well with their friends and pursuing all sorts of projects with them. They generally keep promises made to each other or to themselves. But they lack a sense of citizenship and they have no motivation to work for the good of their country.

2. Enterprises' Evaluation of the Level of Scholastic Achievements and Personality Development

It is difficult to judge how scholastic levels and personality development among graduates are evaluated by industry inasmuch as there is no systematic or comprehensive data available on the subject. The following statements are based on reports of the present situation and on the survey findings of economic associations.

a) Small and medium-sized enterprises point out that what is learned in school is inadequate training for jobs. The ability to think is under-developed; there are no strong preferences apparent for specific fields of study and there are considerable differences in quality among university graduates. Large enterprises feel that fundamental scholastic achievements are lacking; there are many people in technical fields who do not have the basic scientific background just as there are those in clerical fields who lack the ability to think and judge for themselves. In general, a considerable number of graduates employed by large-scale enterprises are thought to be unoriginal, uncreative, unspontaneous and unconstructive.

b) An overwhelmingly large number of enterprises feel that there has been no change in the level of scholastic achievements of university graduates over the past two to three years. But 15 to 20 per cent among the enterprises polled even considered that the level had dropped. Subjects which were thought to be particularly poor were elementary foreign languages and Japanese. Advanced mathematics is the subject in which graduates from university science departments seem to be most deficient.

c) Throughout the entire range of enterprises it is generally felt that an ability to deal with human relations is lacking. Small and medium-sized industry points to a lack of spirit, a narrowness of vision and an inability to improve daily life. Large-scale enterprises point to a lack of originality, individuality and creativity and would like to see more strong-minded individuals. They also deplore tendencies to blind obedience, and to ignoring the opinions of others.

They do, nevertheless, credit young people with an awareness of important international problems, and find them rational, honest and outspoken in their opinions.

d) It is indicated that standards of recruitment demand a positive outlook and a spirit of co-operation as well as sheer ability. Effort and sincerity are valued as much as cheerful disposition and common sense. In practice, however, those employed are thought to be short of positiveness and individuality and of egotism and selfishness on the one hand, but, on the other, prove themselves to be sociable, active, adaptable and articulate.

5. What Factors Need to be Examined, Judging from the Conclusions Drawn from the Analysis Above?

a) The public is very conscious of the value of school education. An increase in the percentage of students proceeding to higher education is expected. The public is, however, also aware of the differences between universities and, therefore, the unfortunate disparities inherent in current education may be accentuated in the future. This prospect makes it all the more urgent to provide higher education adequate to meet the public's demands.

b) Considering that the need for post-graduate education becomes stronger as the levels of education completed increase, and that education by correspondence has been developing rapidly in the specialised technical fields, it is time to give thought to a flexible system of "life-long education" designed to cope with rapid social change and for people of all social strata, while, at the same time, developing the qualitative aspects of school education itself.

c) The tendency of major employers to recruit graduates from particular universities not only impedes the principle of equal opportunity of employment but also encourages an over-concentration of applicants to those universities by perpetuating a social hierarchy among them. Because of this it is necessary to implement measures to keep present differences among schools from widening further and, simultaneously, study the means through which recruitment based on the evaluation of individual abilities can be fully realised.

d) The post-war school education programmes have often been criticised for failing to provide students with basic scholastic achievements, self-discipline, tenacity and a social conscience. Whether or not there are grounds for such criticism, the fact exists that the achievements of education are always watched by the general public. Therefore it is now urgent that a scientific programme for research into and an evaluation of educational systems be established and put into practice and that the results be taken into consideration in improving school education as a whole.

e) Japanese school education, in a world in which international relations play an increasingly important role, should be reappraised in view of the increasing contacts between Japan and the rest of the world and of the increasing demands for active Japanese participation in international affairs.

D. REGIONAL, ECONOMIC AND SOCIAL DIFFERENCES AND EDUCATIONAL OPPORTUNITY

I. Regional Differences in Educational Opportunity

1. Opportunities for Upper Secondary School Education

The proportion of lower secondary school graduates who went on to upper secondary schools reached an average of 77 per cent by March 1968. The proportion in each prefecture, however, differs widely: in Tokyo it is 90 per cent while in Aomori it is only 56 per cent. Upper secondary schools in prefectures with large urban areas absorb graduates from lower secondary schools in neighbouring areas (Table I.D.1).

With reference to educational opportunity this situation can be analysed as follows:

a) The proportion of lower secondary school graduates in each prefecture to entrants into upper secondary schools within the respective prefecture is termed the "Prefectural capacity to accommodate". This is higher than the proportions of lower secondary school graduates in each prefecture going on to upper secondary schools by more than 10 per cent in Tokyo and Kyoto and lower by 8 per cent in Saitama. In other prefectures, however, there are no such marked differences. The accommodation capacity is also different between "establishing bodies": the public upper secondary schools' capacity is as high as 92 per cent in Tokushima, while it is only 40 per cent in Tokyo. There are also considerable regional differences in the distribution of courses: the proportion of general education courses to vocational and other courses is 7:3 in Tokyo whereas it is 1:2 in Miyazhi.

As is shown in Table I.D.1, the percentage of corresponding age-groups enrolled in upper secondary schools is different from that of lower secondary school graduates proceeding to upper secondary schools, mainly due to the regional mobility of employment. For example, in Aichi the proportion of lower secondary school graduates going on to upper secondary schools is as high as 81 per cent. A large number of migrants into this prefecture decreased the proportion of the corresponding age-group population in upper secondary schools to 61 per cent bringing it far below the average of the whole country.

2. Opportunities for University and Junior College Education

The proportion of upper secondary school graduates who were admitted to universities or junior colleges both within and outside their school prefectures in the year of graduation reached an average of 23 per cent in March 1968. As shown in Table I.D.1, however, there are wide differences between prefectures, ranging from a 31 per cent high in Hyogo to a 15 per

Table I.D.1

PERCENTAGE OF LOWER AND UPPER SECONDARY SCHOOL GRADUATES WHO PROCEEDED TO UPPER SECONDARY SCHOOLS, JUNIOR COLLEGES OR UNIVERSITIES, BY PREFECTURE

Prefectures	Percentages who proceeded to upper secondary schools				Percentages who proceeded to universities or junior colleges		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Hokkaido	68.9	1.1	67.6	70.1	21.4	7.9	21.2
2. Aomori	56.8	2.2	61.7	58.7	17.0	4.2	7.7
3. Iwate	50.1	2.8	65.5	62.5	17.9	5.9	6.8
4. Miyagi	67.5	2.2	71.0	68.0	19.3	19.3	21.1
5. Akita	65.5	1.6	72.0	66.8	17.7	4.0	5.7
6. Yamagata	72.3	0.6	23.9	72.2	15.5	6.0	8.1
7. Fukushima	65.6	1.8	71.3	66.9	17.0	4.0	4.9
8. Ibaraki	63.4	3.6	64.9	65.0	15.4	3.8	7.1
9. Tochigi	66.3	2.7	68.1	71.0	18.6	2.4	3.9
10. Gunma	75.1	2.0	72.0	79.8	16.0	6.4	7.3
11. Saitama	66.1	11.3	55.9	69.8	15.9	2.2	9.1
12. Chiba	68.7	5.6	65.8	75.5	18.3	8.8	13.3
13. Tokyo	90.0	1.6	81.7	104.9	30.0	41.8	58.1
14. Kanagawa	79.9	7.2	63.1	87.2	29.4	7.1	14.6
15. Niigata	68.6	2.2	73.4	70.3	16.1	4.1	4.7
16. Toyama	81.3	1.0	80.4	82.7	24.2	5.5	6.5
17. Ishikawa	74.2	1.0	62.4	82.8	23.5	8.9	11.4
18. Fukui	75.4	1.6	70.2	76.9	23.8	5.0	6.7
19. Yamanashi	78.8	1.5	86.0	82.4	23.4	10.1	11.2
20. Nagano	79.8	1.8	78.4	81.3	17.9	4.7	6.6
21. Gifu	73.9	3.3	64.3	80.0	24.0	4.1	10.0
22. Shizuoka	75.8	1.2	67.8	78.3	21.0	3.3	5.4
23. Aichi	79.7	0.8	60.8	87.2	26.3	13.0	21.8
24. Miye	72.7	2.6	65.8	75.7	22.4	4.1	7.6
25. Shiga	72.4	2.9	61.6	75.0	19.8	3.9	6.7
26. Kyoto	83.6	1.2	79.0	96.0	23.7	38.3	41.4
27. Osaka	82.7	1.9	66.3	92.0	27.7	15.8	25.4
28. Hyogo	77.7	5.0	67.9	81.5	31.2	12.7	19.1
29. Nara	76.2	5.2	71.9	86.2	25.2	9.3	17.7
30. Wakayama	71.9	2.9	73.7	73.0	23.7	4.7	5.9
31. Tottori	79.8	1.3	85.9	73.9	23.3	8.0	5.8
32. Shimane	68.5	3.1	78.2	68.3	19.7	5.3	4.5
33. Okayama	82.8	1.6	80.2	89.0	23.9	8.5	11.0
34. Hiroshima	87.7	1.2	86.0	97.6	27.6	9.7	13.4
35. Yamaguchi	80.1	3.8	82.4	79.6	22.8	6.4	8.5
36. Tokushima	66.8	2.7	76.7	68.1	23.7	10.0	11.4
37. Kagawa	82.2	1.7	87.9	85.9	22.2	5.6	6.0
38. Ehime	70.2	3.4	76.7	71.7	25.3	7.8	8.2
39. Kochi	64.8	3.6	63.9	67.8	21.1	6.0	8.2
40. Fukuoka	78.2	1.2	75.3	79.0	22.0	16.5	19.9
41. Saga	70.6	4.4	75.0	72.8	20.8	5.3	7.5
42. Nagasaki	61.8	3.4	79.7	63.6	21.0	7.4	9.9
43. Kumamoto	64.7	3.1	69.4	65.7	19.8	10.9	9.3
44. Oita	76.2	1.7	83.4	78.4	22.6	4.2	7.6
45. Miyazaki	64.0	3.1	66.1	64.1	19.7	5.6	8.8
46. Kagoshima	66.6	3.9	78.9	69.2	18.5	9.4	8.4

.../

Notes to Table I.D.1

1. Column 1 . . . Percentage of lower secondary school graduates in each prefecture who proceeded to upper secondary schools within the prefecture, as of 1968.

Column 2 . . . Percentage of lower secondary school graduates in each prefecture who went to upper secondary schools outside the prefecture, as of 1968.

Column 3 . . . Percentage of the population of 15 to 17 years of age in each prefecture who were enrolled in upper secondary schools within the prefecture, as of 1965.

Column 4 . . . Ratio of the number enrolled in the first year of upper secondary schools in each prefecture to the total number of graduates from lower secondary schools in the same prefecture, as of 1968.

Column 5 . . . Percentage of upper secondary school graduates in each prefecture who proceeded to universities and junior colleges both within and outside their home prefecture, as of 1968.

Column 6 . . . Ratio of the number enrolled in universities and junior colleges in each prefecture to the population of 18 to 21 years of age in the same prefecture, as of 1965.

Column 7 . . . Ratio of the fixed number of admissions of universities and junior colleges in each prefecture to the number of graduates from upper secondary schools within the same prefecture, as of 1967.

2. The percentage of such graduates in the whole country who proceeded to upper secondary schools and universities and junior colleges in 1965 to 1968 are as follows:

	1965	1966	1967	1968
Upper secondary school	70.6	72.3	74.7	76.7
University and junior college	25.4	24.5	23.7	23.1

cent low in Ibariki. These situations can be further analysed from the point of view of educational opportunity:

a) As is shown in Figure I.D.2, the proportion of upper secondary school graduates from each prefecture to university and junior college places in the respective prefectures, is not more than 10 per cent in most prefectures, ranging from 58 per cent in Tokyo and 41 per cent in Kyoto to the lowest 4 per cent in Tochigi. These differences are mainly attributable to differences in the capacity to accommodate private institutions. In some prefectures such as Gifu, Miye and Ohita, universities have more places than junior colleges, and, as is shown in Figure I.D.2, there are eleven prefectures in which only national and local public universities are situated.

There is a rather high correlation between the proportion of upper secondary school graduates admitted to universities or junior colleges and the proportion of upper secondary school graduates from each prefecture to university and junior college places in the respective prefectures, being 0.51 for male university students and 0.59 for female junior college students.

b) An examination of the capacity of universities to accommodate the lower secondary school graduates from the prefectures in which the universities are situated for each field of study shows that although "teacher training" departments are available in all prefectures, either "literature" or "law", "political science" and "commerce and economics" departments are deficient in five prefectures, i.e. Tochigi, Fukui, Tottori, Tokushima and Miyazaki, and "science" or "engineering" departments are found wanting in the following five prefectures: Fukushima, Miye, Shiga, Wakayama and Kagawa.

Some fields of study show a low correlation between the proportion of upper secondary school graduates in each prefecture going on to universities or junior colleges and the proportion of lower secondary school graduates to university and junior college places in each prefecture. Therefore, it is apparent that university and junior college places are not provided by each prefecture in close relation to preferences for fields of study.

c) The percentage of the corresponding age-group population enrolled in universities or junior colleges in their respective prefectures is not more than 10 per cent in most prefectures, while it is about 40 per cent in Tokyo and Kyoto, higher than the percentage of upper secondary school graduates from these regions going on to the universities or junior colleges. This is an indication of the considerable concentration of students in those regions.

3. Regional Mobility of Those Going on to Higher Education

This concentration is most striking in Tokyo: 40 to 70 per cent of male and 30 to 70 per cent of female university students from prefectures in the eastern parts of Japan (except Miyagi), and 30 to 40 per cent of male and 20 to 30 per cent of female students from the western parts of Japan (except the Keihanshin and Chukyo regions), are studying in the Tokyo area.

There is also a heavy concentration of students in the Keihanshin region, Miyagi, Aichi, and Fukuoka, from western Japan, six prefectures in north-east Japan, the Chukyo region, and prefectures in Kyushu, respectively.

4. Proportion of Lower Secondary School Graduates to University and Junior College Places by Regional Bloc

As is shown in Table I.D.3, the proportion of lower secondary school graduates to university and junior college places differs to a lesser extent between seven regional blocs, i.e.

Figure I.D.2(1)

DISTRIBUTION OF PREFECTURES BY THE ACCOMMODATING CAPACITY OF UNIVERSITIES AND JUNIOR COLLEGES WITHIN THE AREA, AS OF 1968

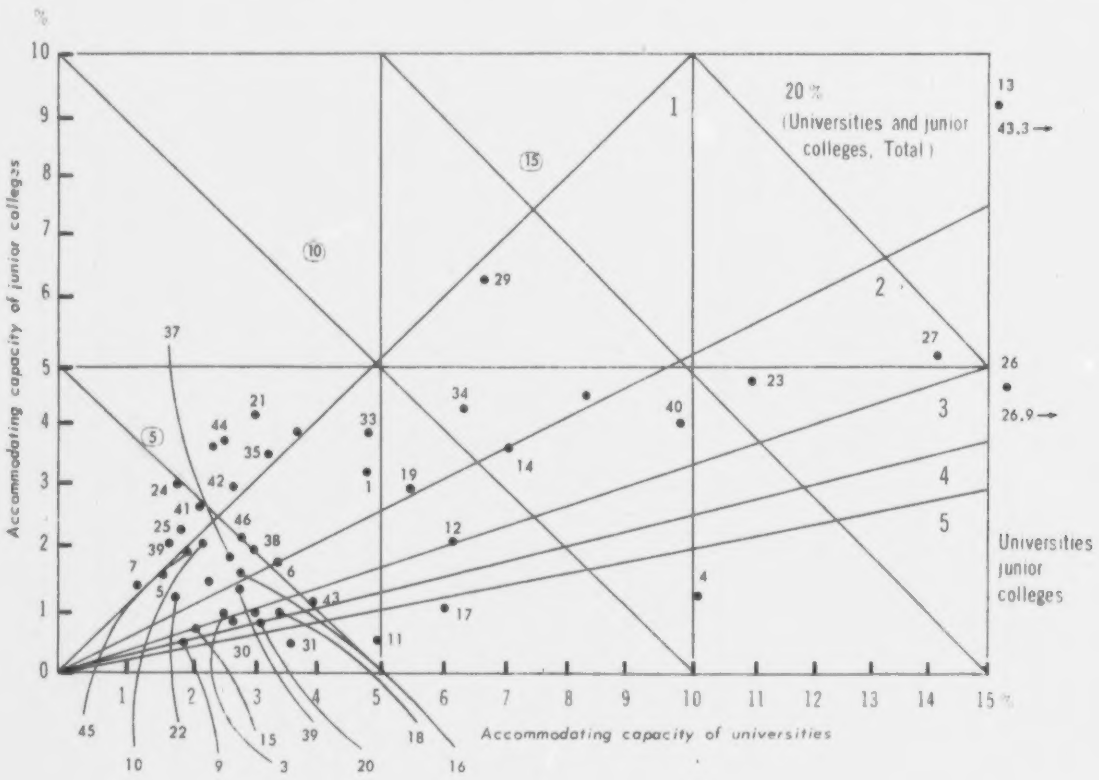


Figure I. D.2(2)

DISTRIBUTION OF PREFECTURES BY THE ACCOMMODATING CAPACITY OF ALL KINDS OF UNIVERSITIES AND THAT OF NATIONAL UNIVERSITIES WITHIN THE AREA, AS OF 1968

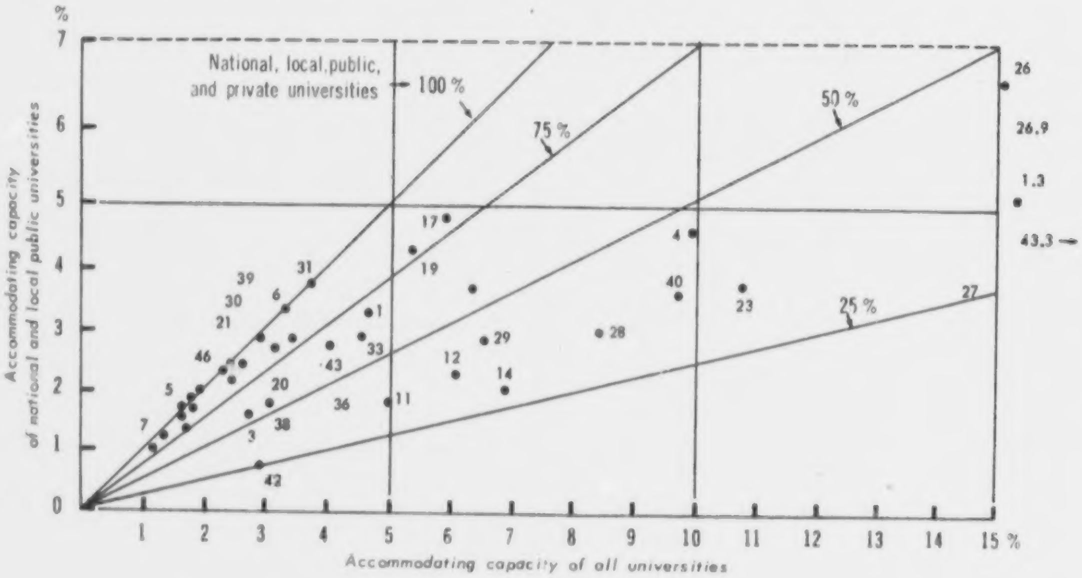


Table I.D.3

ACCOMMODATING CAPACITY OF UNIVERSITIES IN EACH BLOC OF PREFECTURES, BY FIELD OF STUDY, AS OF 1967

(per 1,000 graduates from lower secondary schools)

	Total	Liberal arts	Law, Politics, Commerce and Economics	Science	Engineering	Mercantile marine	Agriculture	Medicine
Hokkaido	(31.5) 45.6	(1.3) 3.5	(4.2) 13.1	(2.0) 2.0	(9.0) 9.8		(4.6) 6.8	(1.3) 1.3
Tohoku	(24.2) 36.0	(1.3) 3.4	(3.0) 6.7	(2.1) 2.1	(7.1) 9.9		(2.3) 2.3	(0.9) 1.2
Kanto	(29.5) 142.2	(2.9) 25.2	(4.2) 51.7	(2.3) 6.8	(8.2) 31.3	(0.2) 0.2	(2.6) 5.7	(0.9) 2.1
Chubu	(31.6) 64.4	(2.6) 7.5	(3.6) 19.1	(1.9) 2.3	(9.9) 17.3		(2.3) 2.7	(1.5) 1.5
Kinki	(38.1) 107.1	(4.5) 24.1	(8.7) 36.2	(1.9) 4.0	(10.2) 22.1	(0.4) 0.4	(2.5) 2.8	(1.7) 2.1
Chugoku-Shikoku	(27.5) 38.6	(2.7) 5.0	(3.1) 7.9	(2.0) 2.0	(4.7) 7.6		(3.6) 3.6	(1.0) 1.0
Kyushu	(25.9) 45.5	(2.2) 3.5	(4.9) 16.1	.7) 7	(5.9) 11.1		(3.5) 2.8	(1.1) 1.3

	Dentistry	Pharmacy	Nursing	Home economics	Physical education	Teacher training	Fine arts	General education
Hokkaido	(0.3) 0.3	(0.6) 0.6				(8.2) 8.2		
Tohoku	(0.2) 0.5	(0.2) 1.1		1.2	0.4	(7.1) 7.1	0.1	
Kanto	(0.2) 0.8	(0.4) 3.2	0.1	(0.2) 2.7	(0.3) 1.4	(6.3) 6.3	(0.6) 4.5	(0.2) 0.2
Chubu	(--) 0.5	(1.5) 2.1		2.3	0.8	(7.2) 7.2	(1.1) 1.1	
Kinki	(0.1) 0.4	(0.4) 2.1		(0.8) 3.4	(0.0) 0.5	(6.6) 6.8	(0.3) 1.8	0.4
Chugoku-Shikoku	(0.2) 0.2	(0.4) 0.4	(0.0) 0.1	(1.0) 1.7		(8.8) 8.8	0.3	
Kyushu	(0.4) 0.4	(0.6) 1.5		(0.4) 0.7		(6.2) 6.2	0.2	

Notes: 1. "Accommodating capacity of universities" means the ratios of the fixed number of admissions of universities and junior colleges as of 1967 to the total number of graduates from lower secondary schools as of March 1964.

2. Figures in brackets refer to national and local public universities.

Hokkaido, Tohoku (six prefectures in Tohoku district), Kanto (Kanto, Koshinetsu and Shizuoka), Chubu (Toyama, Ishikawa, Gifu, Aichi, Miye), Kinki (six prefectures in Kinki, Fukui, Tottori, and Okayama), Chugoku-Shikoku (Shimane, Hiroshima and four prefectures in Shikoku), and Kyushu (Yamaguchi, and seven prefectures in Kyushu) than between prefectures. The proportion for each of such regional units ranges from the highest, 14.2 per cent in Kanto, to the lowest, 3.6 per cent in Tohoku. The proportion of lower secondary school graduates to national and local public university places only differs less widely, ranging from the highest, 3.8 per cent in Kinki, to the lowest, 2.4 per cent in Tohoku. Most fields of study are available in each bloc.

5. Determinants of Regional Differences in the Percentage of Graduates Going on to Higher Levels of Education

The relation between geographical differences in the provision of school education on the one hand and geographical differences in the percentage of graduates going on to higher levels of education on the other, is mostly determined by public educational institutions.

The provision of upper secondary school education in each region is largely determined by the extent to which lower secondary school graduates wish to receive that level of education. On the other hand, the percentage of upper secondary school graduates going on to universities, which are mostly private, tends to be determined by the university places available in each prefecture.

In any case, the percentage of graduates going on to a higher level of education in each prefecture seems to have a certain relation to the economic, natural and cultural factors of the whole prefecture. Based on this consideration, regression analyses were applied to those factors. As economic factors, prefectural income per capita, and the percentage of the population in non-agricultural sectors were used. As a natural factor, the percentage of elementary and lower secondary schools designated as isolated schools was taken. As cultural factors, newspaper circulation per capita, public educational expenditures per pupil for elementary, lower secondary and upper secondary education was taken and for the percentage of upper secondary school graduates going on to universities, the capacity to accommodate index was utilised. The results of this analysis are as follows:

a) The percentage of lower secondary school graduates going on to upper secondary school was found to be closely correlated with the percentage of the population in the non-agricultural sectors, per pupil public educational expenditure and the percentage of schools designated as isolated. The percentage of upper secondary school graduates going on to universities was found to be closely related to the percentage of the population in non-agricultural sectors. As is shown in Figure I.D.4, there is a high correlation in either case with the percentage of the population in non-agricultural sectors, suggesting that the percentage of graduates going on to higher levels of education is influenced by economic and social factors related to urbanisation.

b) The percentage of graduates going on to higher levels of education is comparatively high in prefectures facing the Inland Sea of Seto, Toyama, Nagano, Yamanashi, Tottori, and Ohita, although the percentage of the population in non-agricultural sectors in those prefectures is low. But in Hokkaido, Nagasaki and Aomori, the opposite tendency is seen. This may be partly due to the existence of many outlying districts where it is difficult to attend school, judging from the fact that the percentage of schools designated as isolated is high in those three prefectures.

Figure I.D.4

DISTRIBUTION OF PREFECTURES BY PERCENTAGE OF THE POPULATION IN NON-AGRICULTURAL SECTORS AND BY PERCENTAGE OF SECONDARY SCHOOL GRADUATES WHO PROCEED TO HIGHER LEVELS OF EDUCATION, AS OF 1967

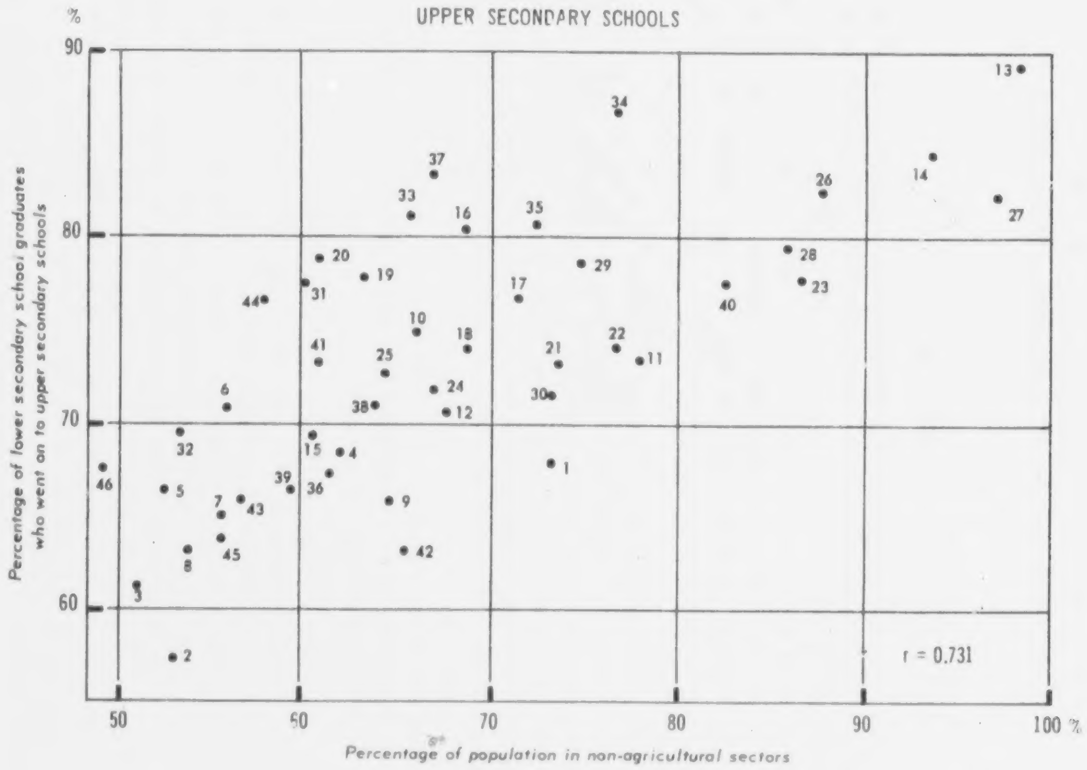
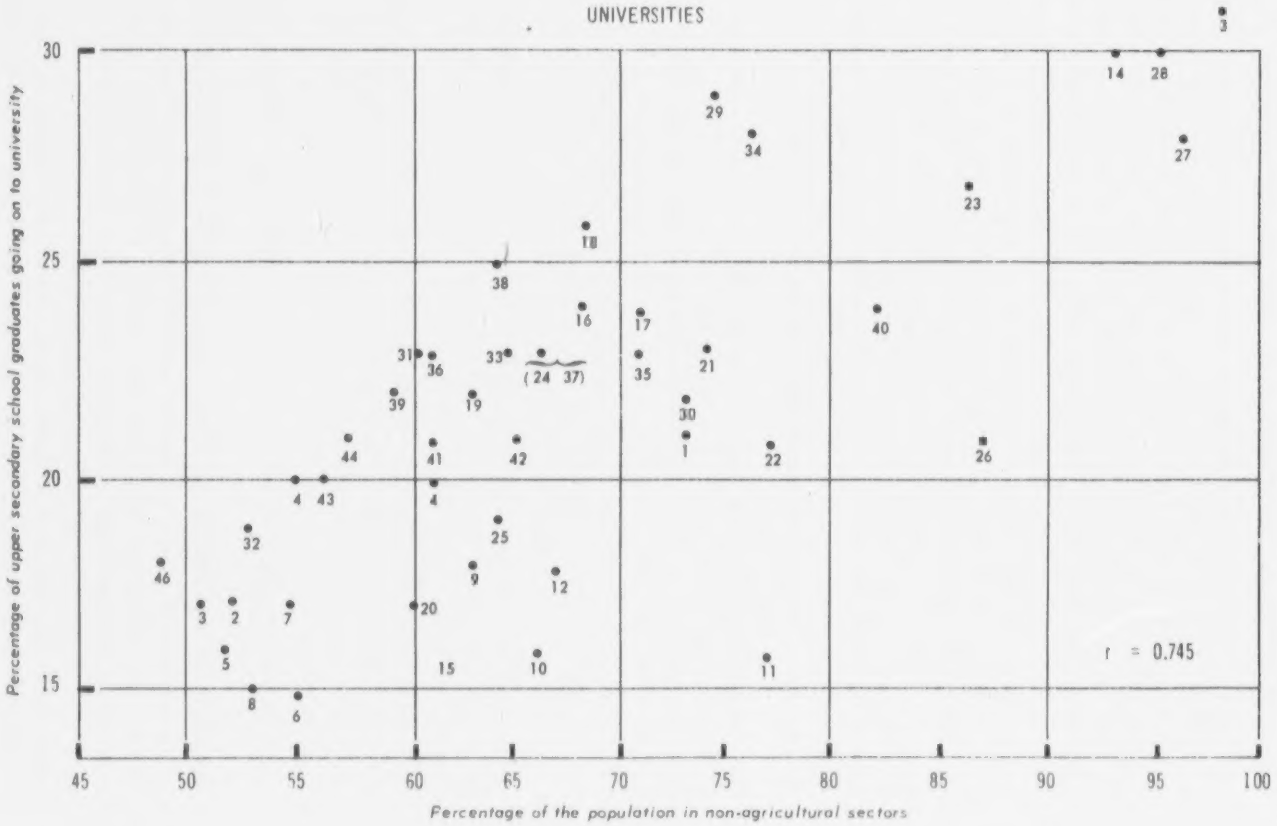


Figure I.D.4 *(continued)*

DISTRIBUTION OF PREFECTURES BY PERCENTAGE OF THE POPULATION IN NON-AGRICULTURAL SECTORS AND BY PERCENTAGE OF SECONDARY SCHOOL GRADUATES WHO PROCEED TO HIGHER LEVELS OF EDUCATION, AS OF 1967



II. Factors Affecting Individual Motivation for Education

1. Degree of Motivation for Proceeding to Upper Secondary Schools

In order to compare the extent to which various factors influence the motivation of individuals for going on to higher education, an analysis was made of tentatively chosen factors relating to a representative selection of lower secondary school graduates in March 1968 such as sex, regional pattern of residential area, family income, family occupation, educational attainments of parents, ranking among brothers and grading, by applying the factor analysis method developed in "Quantitative Theory II" (by Chikuo Hayashi).

This method is designed to analyse quantitatively whether various factors related to each other contributed to raising the degree of motivation of lower secondary school graduates for going on to higher levels of education over the average degree or to decreasing it below the average. The degree of motivation of individuals under various conditions can be estimated as the sum of the degrees to which each factor contributes to raising or decreasing the degree of motivation (to be referred to as (+) or (-) "intensity" hereafter). It should be noted, however, that this "intensity" shows only the relative explanatory power of each factor in this analysis.

The results of this analysis are as follows (Figure I.D.5):

a) The factor with the strongest "intensity" was "grade point average". Grade point average 3.0 and over, when the highest point is set at 5, contributes to raising the degree of motivation ("intensity" 0.17-1.3), while grade point average 2.9 and below contributes to decreasing it ("intensity" -0.6 - -1.3).

b) The second strongest factor was "family income". Annual income amounting to 800,000 yen and over contributes to raising the degree of motivation (0.3 - 0.7), while annual income amounting to 790,000 yen and less contributes to decreasing it (-0.3).

c) The degree of motivation is raised when either fathers or mothers are graduates from secondary or higher education (0.2 - 0.3). But the degree of motivation falls noticeably when either fathers or mothers are absent (-0.3 - -0.5).

d) The degree of motivation is promoted (0.3) when fathers are employees of private enterprises, or of the Government, or are merchants or managers, while the degree of motivation is likely to be decreased (-0.2) when the family occupation is agriculture, forestry, fishing or labouring.

e) "Ranking among brothers" and "sex" factors exert very little influence.

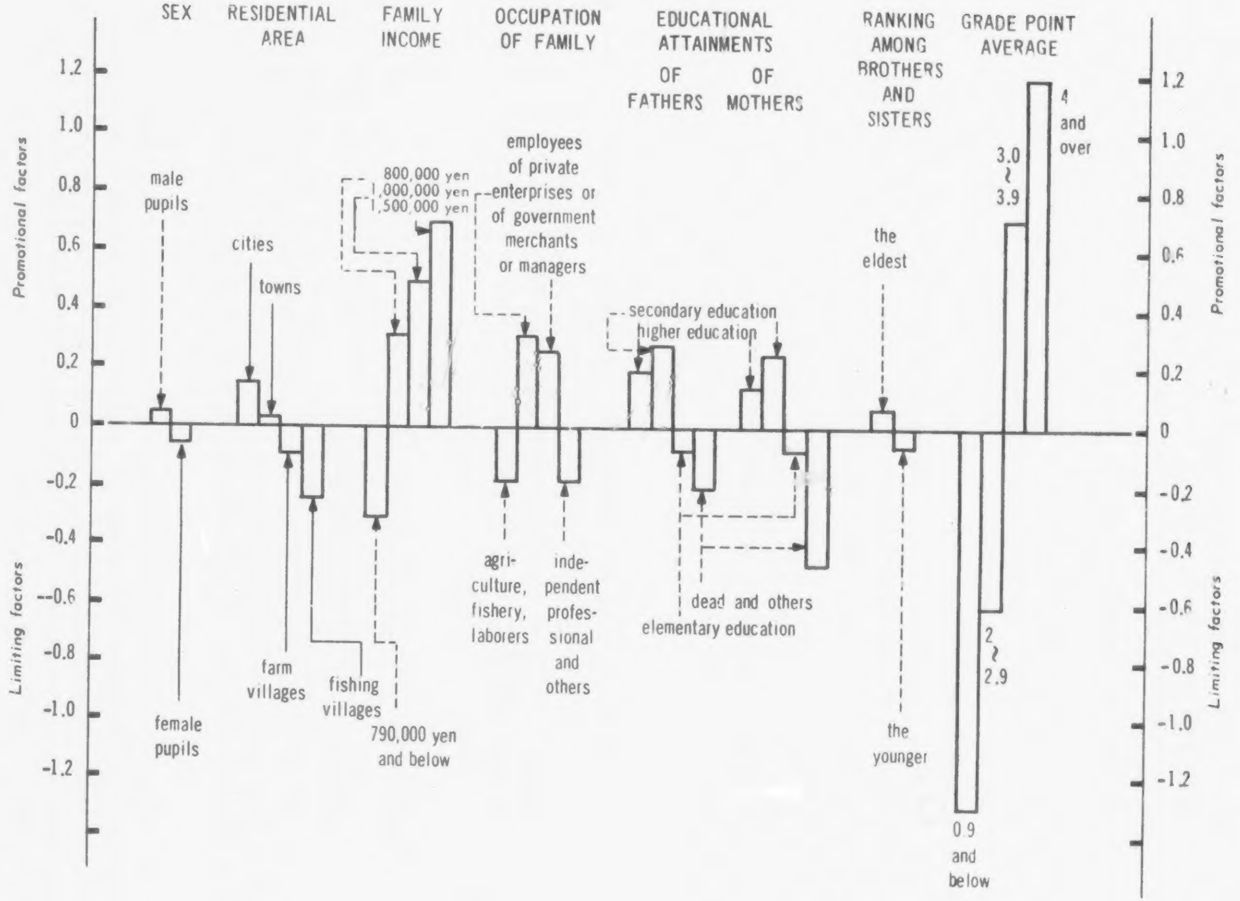
2. The Degree of Motivation for Each Upper Secondary School Course

A similar analysis was made to assess which factors determine preferences for courses, i.e. general vs. vocational. It was found that "grade point average" has the strongest influence. Pupils with an average grade point of 4.0 and over and pupils with an average of 2.9 and below show distinctively different preferences.

An annual family income of 1,000,000 yen and over contributes to promoting an orientation toward the general study course (1.1 - 1.8). Pupils whose parents have "high educational attainments" and female pupils have a stronger preference for the general course than do other categories of pupils.

Figure I.D.5

QUANTIFICATION OF FACTORS INFLUENCING INDIVIDUALS' WISHES TO PROCEED TO HIGHER LEVELS OF EDUCATION, AS OF 1968 FROM LOWER SECONDARY SCHOOL TO UPPER SECONDARY SCHOOL



3. The Degree of Motivation for University and Junior College Education

The aspirations of upper secondary school graduates (full-time general course) in March 1968 for university and junior college education were surveyed and analysed by a method similar to that above. The result of this analysis is as follows (Figure I.D.6):

a) A grade point average of 24 and below (50 points being the highest) indicates a marked decrease in motivation ("intensity" -6.5). It is to be noted, however, motivation is not noticeably intensified even if the grade point average is 40 and over ("intensity" 2.0).

b) "Sex" is a prime determinant of motivation. Motivation is intensified for males (3.2) whereas it drops for females (-4.5). Females' motivations become very low indeed if there are no other promotional factors at work.

c) Students whose fathers are merchants, managers or independent professionals have stronger motivations (intensity 1.4 - 2.8) while such family occupational categories as "agriculture, forestry and fishing" and "labouring" considerably lower motivations (-4.1).

d) When either fathers or mothers have received higher education, their children's motivations are intensified (2.4). When either fathers or mothers, though in particular fathers, are dead, motivations are negatively affected (-4.4).

e) When the annual family income is 1,000,000 yen and over motivation is positively influenced (2.0 - 3.2), whilst, with an income of less than 1,000,000 yen the influence is negative.

f) "Scholarships" received during upper secondary education exert some influence upon motivation for universities and junior colleges.

g) Pupils enrolled in private schools have lower motivation than those in national or local public schools. And the eldest children have somewhat stronger motivations than the younger children.

III. The Scholarship System

1. Outline of Scholarship Programmes

The central scholarship agency in our country is the Japanese Scholarship Association, which provides approximately 80 per cent of all the scholarship programmes in terms of scholarship students and funds. In outline, the activities of the Association are as follows:

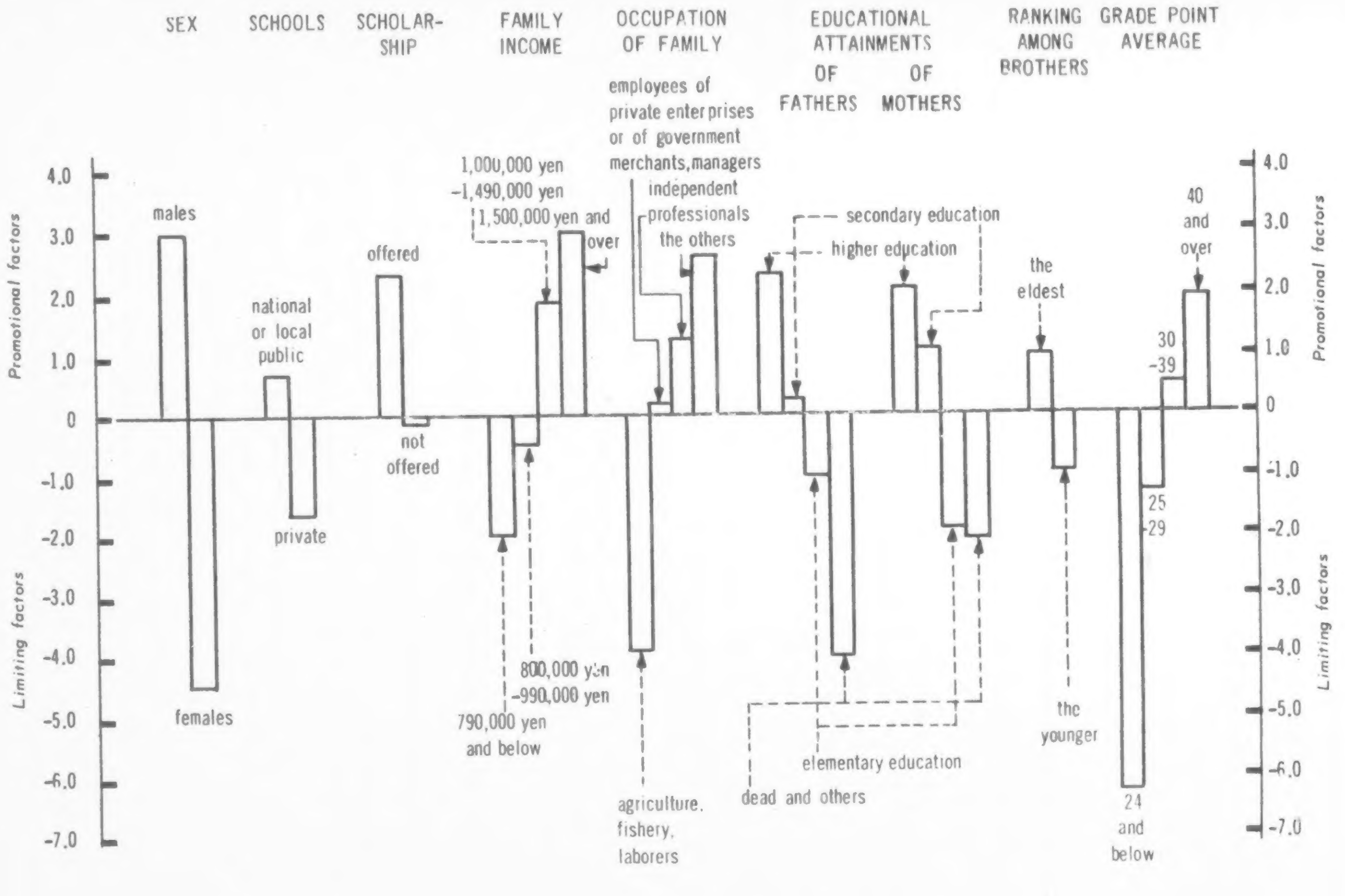
a) The number of students who received loans from this Association increased from about 220,000 to 310,000 during the recent ten years. The percentage of university students receiving loans, however, decreased by nearly 50 per cent from 20 to 12 per cent, due to the rapid increase in university enrolment. The total amount of loans increased 3.5 times during the same period from 4.7 billion to 16.5 billion yen.

b) Although the percentage of upper secondary school students provided with loans is decreasing, irrespective of whether the loan is "general" or "special", the relative proportions of "special loan" students to "general loan" students has changed from 3 to 10, to 8 to 10 during the past four years (Table I.D.7).

c) The monthly amount of "general loan" per student is 1,500 yen for upper secondary school students, 3,000 yen for undergraduate students and junior college students, 13,000 yen for master's degrees and 18,000 yen for doctor's degrees. The monthly amount of a "special

Figure I.D.6

QUANTIFICATION OF FACTORS INFLUENCING INDIVIDUALS' WISHES
TO PROCEED TO A HIGHER LEVEL OF EDUCATION, AS OF 1968
FROM FULL-TIME GENERAL COURSES OF UPPER SECONDARY SCHOOLS TO UNIVERSITIES



loan" is 3,000 yen for upper secondary schools, 5,000 to 8,000 yen for undergraduate departments. This, however, was increased from 7,500 to 12,000 yen for private universities.

On the whole, however, an emphasis has been placed on maintaining the percentage of students provided with loans, and the value of the loan per student has yet to be raised.

d) "General loan scholarships" are, in principle, provided for upper secondary school students whose grade point average in lower secondary schools was 3.5 and over, and for university students who had grade point averages of 3.2 and over in upper secondary schools. The corresponding grade point averages required of "special loan scholarship" students are 4.2 and over for upper secondary schools and 3.5 and over for universities. It is also required that the annual income of the family should be no more than 800,000 to 900,000 yen for upper secondary school students and no more than 1,000,000 to 1,200,000 yen for university students.

2. Deciding Against University Attendance

The relationship between motivation for university education, grade point average and parental income creates the following tendencies:

a) Approximately two-thirds of the graduates of the full-time general course of upper secondary schools did not express motivations for higher education. As is shown in Table I.D.7, however, of those graduates about 20 per cent were considered by their teachers to "possess adequate scholastic achievements and determination". But 20 per cent of male and a little less than 40 per cent of female students thus designated pointed to economic hardship as their reason for not going on to higher education: "they have to help support their family" or "they cannot afford to bear the costs of university education".

b) In Table I.D.8, it should be noted that the average annual income of parents whose children gave up plans for higher education, despite their scholastic achievements and their own ambitions, was from 700,000 to 800,000 yen or in the neighbourhood of one-half of the average for all students with such aspirations (1,300,000 to 1,500,000 yen). The grade point average of these students was from 3.4 to 3.7, no less than that of other, similarly motivated students.

IV. The Provision of and Demand for Special Education

1. Children in Need of Special Education and Their Enrolment Ratios

The percentage of children needing special education and the estimated percentage of those children actually enrolled in special schools or special classes is as follows:

a) The 1967 survey indicated that the percentage of children needing special education has greatly decreased in recent years due to advances in medical technology and other favourable factors. A constant relationship has been maintained however between the categories of disability. The mentally retarded children still form the largest group of handicapped children within the population, being 2.07 per cent, followed by the physically weak (0.49 per cent), the crippled (0.18 per cent), the blind and partially blind (0.11 per cent) and the deaf and hard of hearing (0.8 per cent).

b) Seventy-five per cent of deaf or partially deaf children were enrolled in special educational institutions in 1968, 49 per cent of crippled children, 44 per cent of the blind and partially blind, 39 per cent of those mentally retarded and 8 per cent of the physically weak.

Table I.D.7

SCHOLASTIC ABILITY, MOTIVATION AND ECONOMIC HANDICAPS OF GRADUATES FROM FULL-TIME GENERAL COURSES OF UPPER SECONDARY SCHOOLS WHO DID NOT PROCEED TO HIGHER EDUCATION, IN 1968

	Male Students				
	Total	Have both scholastic ability and motivation	Have scholastic ability but not motivation	Have motivation but not enough scholastic ability	Have not enough scholastic ability or motivation
Economic handicaps:					
Total	100.0	17.9	23.9	23.3	34.9
Have to get income and help their families	100.0	25.5	16.8	26.0	31.7
Financially cannot afford to pay for higher education	100.0	28.0	19.0	24.7	28.3
No economic handicaps	100.0	12.7	27.1	22.3	37.9
Total	100.0	100.0	100.0	100.0	100.0
Have to get income and help their families	11.5	16.4	8.1	12.8	10.5
Financially cannot afford to pay for higher education	24.1	37.7	19.1	25.5	19.6
No economic handicaps	64.4	45.9	72.8	61.7	69.9
	Female Students				
Economic handicaps:					
Total	100.0	21.7	31.8	18.9	27.6
Have to get income and help their families	100.0	32.0	21.1	19.9	27.0
Financially cannot afford to pay for higher education	100.0	32.2	21.8	22.3	23.7
No economic handicaps	100.0	18.0	35.3	18.0	28.7
Total	100.0	100.0	100.0	100.0	100.0
Have to get income and help their families	7.8	11.6	5.2	8.2	76.7
Financially cannot afford to pay for higher education	18.3	27.0	12.6	21.5	15.7
No economic handicaps	73.9	61.4	82.2	70.3	76.7

Note: Total number of samples: 5,124 males and 12,087 females.

Table I.D.8

SCHOLASTIC ACHIEVEMENT AND FAMILY INCOME OF GRADUATES FROM FULL-TIME GENERAL UPPER SECONDARY SCHOOL COURSES WHO DID NOT PROCEED TO HIGHER EDUCATION

Classification		Male Students			
		Have both scholastic ability and motivation	Have scholastic ability but not motivation	Have motivation but not enough scholastic ability	Have not enough scholastic ability or motivation
Economic handicaps:					
Have to get income and help their families financially	Annual income (in yen)	723	776	687	674
	Grade point	3.4	3.4	3.0	3.0
Cannot afford to pay for higher education	Annual income (in yen)	791	758	760	743
	Grade point	3.5	3.3	3.0	2.9
No economic handicaps	Annual income (in yen)	1,103	1,038	1,095	1,013
	Grade point	3.4	3.3	2.9	2.8
		Female Students			
Economic Handicaps:					
Have to get income and help their families financially	Annual income (in yen)	974	762	797	727
	Grade point	2.9	3.5	3.1	3.0
Cannot afford to pay for higher education	Annual income (in yen)	818	865	845	807
	Grade point	3.7	3.5	3.2	3.1
No economic handicaps	Annual income (in yen)	1,215	1,203	1,149	1,129
	Grade point	3.6	3.5	3.1	3.0

Note: The average annual income of parents and the average grade point of such graduates who wanted to proceed to higher education was as follows:

Average annual income	male 1,309,000 yen	female 1,467,000 yen
Average grade point	male 3.4	female 3.4

Within the past two years the enrolment ratios of the blind and partially blind, the deaf and hard of hearing and the physically weak have changed little, but the enrolment ratios of mentally retarded and crippled children have greatly increased. Therefore, it can be claimed that the provision of special education for these categories of children has made good progress. It is still, however, far from satisfactory.

2. Provision and Types of Special Educational Institutions

The situation of schools and classes designed for special education for each category of handicapped children is as follows:

a) During the past decade the number of schools for the blind has changed little, and the number of schools for the deaf has shown only a gradual increase, while nursery schools have rapidly increased in number so as to exceed the total number of schools for the blind and the deaf. The increase in the number of nursery schools for mentally retarded and crippled children was especially striking. The development of special classes within regular elementary and lower secondary schools has also been so marked that the proportion of special students enrolled in special classes has increased from 40 to 70 per cent during the past ten years.

b) The percentage of students enrolled in special classes is highest for the mentally retarded, being more than 90 per cent. The corresponding proportion is about 60 per cent for the physically weak and only 7 to 8 per cent for the crippled.

c) At the upper secondary level, 45 per cent of the blind are enrolled in special schools and 70 per cent of the deaf. These percentages do not differ widely from those for compulsory education stages. But enrolment ratios for nursery schools are considerably lower. Very few special schools, except schools for the blind, have kindergarten departments.

3. Regional Differences and an International Comparison of Enrolment Ratios

Enrolment ratios for special education are different from one prefecture to another within Japan, just as they are different from country to country, as follows:

a) Enrolment ratios in Gunma, Niigata, Ishikawa and Saga are in the neighbourhood of 40 per cent, while in some other prefectures they are just over 20 per cent. This difference in enrolment ratios seems to be attributable not to the difference in the percentage of children who need special education, but rather to the difference in the efforts made by the authority of the respective region for the promotion of special education.

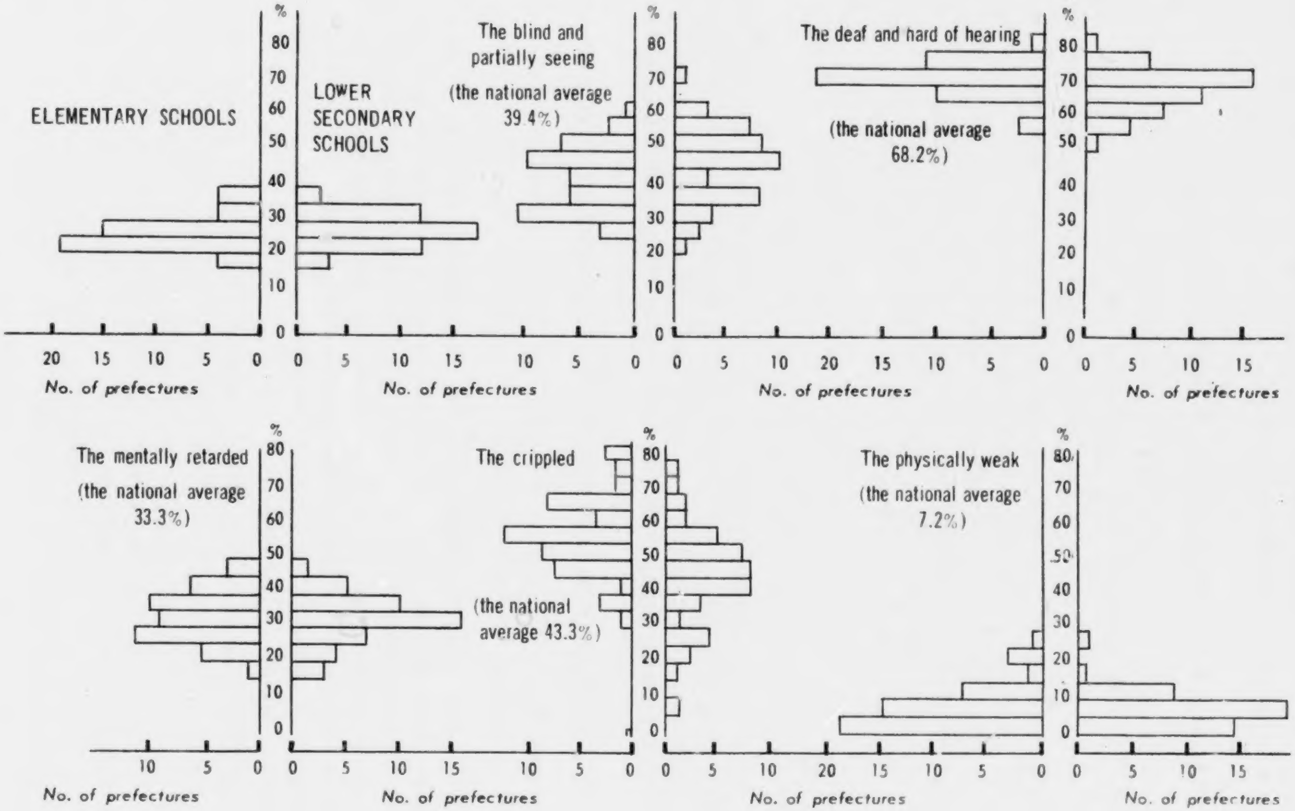
Figure I.D.9 shows the wide range of enrolment ratios amongst the prefectures as distributed for each category of handicap.

b) In the United States of America, special education programmes are also designed for those with speech handicaps, the socially maladjusted, the emotionally maladjusted and sometimes, specially gifted children. In the United Kingdom, the educationally retarded are included in the category of "exceptional" children. These differences in the scope, tradition and organisation of special education, as well as a lack of sufficient information, make it difficult to make an international comparison. It does not seem, however, that the development in our country is any further advanced than that in other industrialised countries.

2

Figure I.D.9

DISTRIBUTION OF PREFECTURES BY THE ENROLMENT RATIOS OF HANDICAPPED CHILDREN OF DIFFERENT CATEGORIES



V. Factors Requiring Further Investigation

Major Problems for Further Study:

1) There are wide differences between prefectures on many educational levels. The percentage of lower secondary school graduates going on to upper secondary schools is generally lower in prefectures with many isolated areas or with a large fraction of the population in the agricultural sector. There are a large number of lower secondary school graduates flowing into prefectures with big cities for the purpose of receiving upper secondary education or for entering employment, and the proportion of private upper secondary schools is very high in these prefectures. Therefore, it is necessary to consider the problem of equal opportunity for the post-compulsory stage of secondary education in the light of these regional differences.

2) It is necessary to examine the national distribution of institutions of higher learning, taking into consideration the results of the analysis which show that the percentage of upper secondary school graduates going on to universities and junior colleges is closely related to the availability of university facilities within the respective prefectures. Such factors should be included in the overall national development plan.

3) It is necessary to examine the appropriate scholarship system in the light of the following: the degree of motivation for higher education is more affected by such factors as sex, family occupation, educational level of parents and family income than by scholastic achievements at upper secondary school; a considerable number of graduates from the full-time general course do not aspire to go to university due to economic reasons, in spite of their comparatively high grades and ambitions; and a low family income has a negative effect on the motivation for higher education.

4) Aspirants for upper secondary schools choose the general or vocational courses largely on a basis of grades obtained at lower secondary schools. Factors encouraging the choice of a general course include the difficulty of deciding on a future career, the higher status of such a course, and the reduced chances of university entry that a vocational course implies.

5) Though special education has been developed considerably since the war, the enrolment ratios have not reached a satisfactory level, and there are wide differences between different categories of handicaps and between regions. It is necessary to consider comprehensive improvements in this field.

Chapter II

CHANGES IN THE SCHOOL SYSTEM : THE DEVELOPMENT OF AN EFFECTIVE EDUCATIONAL SYSTEM ADAPTED TO INDIVIDUAL ABILITIES AND APTITUDES

(The Report of Sub-Committee XXII)

A. THE GROWTH OF THE SCHOOL SYSTEM AND THE DEVELOPMENT OF NEW CONCEPTS OF EDUCATION

I. The Period of Compulsory Education and its Significance

1. The Period of Compulsory Education and the Form of School Enrolment

The following is a brief historical outline of the growth of compulsory education in this country.

Under the Educational Order promulgated in 1872, an eight-year period of compulsory education was envisaged, for children from six to thirteen years of age. Since it was difficult to put this plan into practice all at once, a method of progressive implementation was adopted, as indicated in Figure II.A.1. Progress was made in accordance with economic development, though the initial goal was never forgotten. After 1907 the period of compulsory education was only extended when the enrolment rate for the particular school grade in question had surpassed 70 per cent.

a) From 1879-89, part-time school attendance was allowed (Figure II.A.2).

b) In 1890, full-time school attendance for three or four years was made compulsory.

c) In 1900, the period of compulsory education became one of four consecutive years.

d) In 1907, this period was extended to six years.

e) In 1939, male pupils who took jobs immediately upon graduation from elementary school were compelled to part-time attendance at the youth school until they were nineteen years old.

f) In 1941 it was announced that the eight-year period of compulsory education should begin in 1944, but this was then postponed following the deterioration of the military situation during World War II.

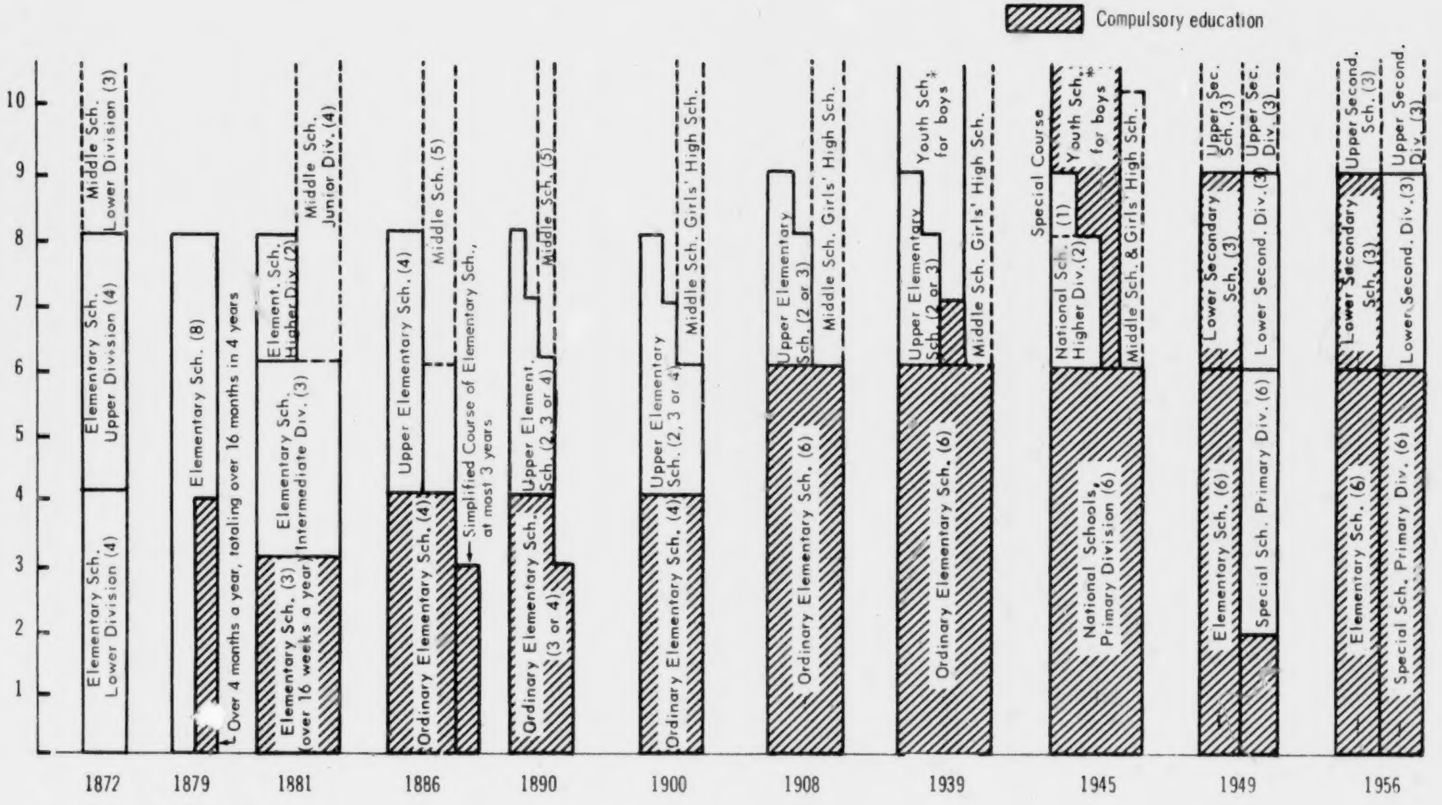
g) In 1947, a newly designated lower secondary school was instituted and the period of compulsory education was set at nine years.

2. The Significance of Compulsory Education

When the Education Order was first made law, compulsory education aimed at teaching pupils a minimum of the learning and skills needed by everyone, that is, knowledge deemed vital to the awakening of the peoples' national consciousness, to the development of industry, and to the increase in production required in the creation of any modern, unified nation.

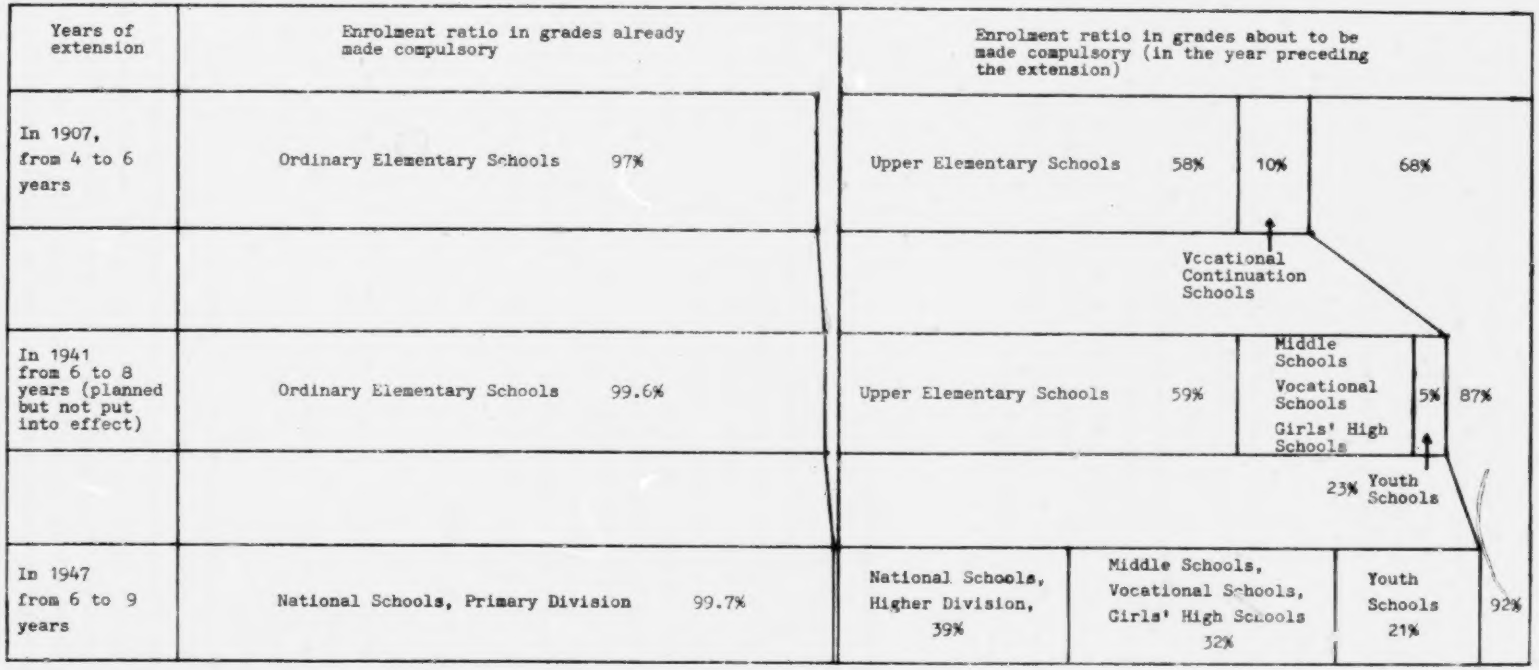
Figure II. A.1

CHANGES IN THE SYSTEM OF PRIMARY EDUCATION AND IN THE PERIOD OF COMPULSORY EDUCATION
1872-1956



* Only for working youth.

Figure II.A-2 Enrolment ratios in compulsory education at the times of its extension.


Years of extension
Enrolment ratio in grades already made compulsory
Enrolment ratio in grades about to be made compulsory (in the year preceding the extension)
In 1907, from 4 to 6 years
Ordinary Elementary Schools 97%
Upper Elementary Schools 58%
10%
68%
Vccational Continuation Schools
In 1941 from 6 to 8 years (planned but not put into effect)
Ordinary Elementary Schools 99.6%
Upper Elementary Schools 59%
Middle Schools
Vocational Schools
Girls' High Schools
5%
87%
23% Youth Schools
In 1947 from 6 to 9 years
National Schools, Primary Division 99.7%
National Schools, Higher Division, 39%
Middle Schools, Vocational Schools, Girls' High Schools 32%
Youth Schools 21%
92%

After the amendment of the Elementary School Ordinance in 1900, however, people swung round to the view that children should attend school until a fixed age rather than merely learn specified subjects. With this extension of the period of compulsory education, importance was given to the notion of providing children with the opportunity of equal and appropriate education according to each stage of their mental and physical growth.

Problems for Study:

Judging from the development of compulsory education in the past, it is necessary, in studying the need for or possibility of further extension of the compulsory education period, to clarify the long-range goals with particular emphasis on providing children with an opportunity for equal and appropriate education in accordance with their individual abilities, aptitudes and environment. In planning the implementation of such programmes, it is necessary to study the possibility of adopting such flexible formula as making children's school attendance compulsory until they reach a certain age even if this does not conform to the school years of any particular school, or, depending on individual circumstances, of allowing children to attend school on a part-time basis.

II. Elementary Education

1. The Unitary School System

Prior to the promulgation of the Education Order, the elementary school system tended to be divided between the "elementary school", derived from the "Terakoya" (temple schools) and "Shijuku" (private schools), for the education of most of the children, and the "Shogaku" (primary school), which derived from the former clan's school, for the education of the children of the ruling class. The binary system based on class differences was prevalent in Europe, from which Japan sought examples, at the same time. It is worth pointing out, therefore, that a unitary school system for children of all classes was created in Japan under the Education Order of 1872. This was due firstly to the historical fact that this country formed a comparatively homogeneous society consisting of a single race, and secondly, to the foresight of our Meiji Era leaders. This unitary school system stimulated movement between different social classes and facilitated the modernisation of society.

2. The Content of Education

Elementary education has consistently aimed at giving children fundamental knowledge, practical skills, a moral sense and a national conscience, as well as promoting their mental, emotional and social growth.

Occasional changes were made in response to social needs or to changing educational philosophies, with particular emphasis being laid on the following: the reinforcement of morality, the promotion of practical and systematic knowledge, the particular problems presented by individual needs, the dangers of stereotyped education and the need for a unified system of education embracing advanced education. In the case of each of those changes, serious arguments were voiced concerning the objectives and character of education.

An examination of the history of education shows that whilst traditional, academic subjects have retained their importance, other subjects, including "science" and "social studies", have been added to the curriculum. Other subjects like the study of the national language or of elementary mathematics have declined in importance although in the school time-table they still occupy the same number of hours. Subjects like "music" and "art" have become more important, while the significance attached to "physical education" has fluctuated. It is worth noting also that extra-curricular educational activities, first introduced in 1941, have been given more emphasis in recent years (Figure II.A.3).

3. Nationally defined Standards for Educational Content

The method of defining standards for the content of education has undergone many changes. At one time content was spelled out in detail by the Government while at another time only general indications were given; at one point uniform administration was demanded while at another more flexible administration was tolerated. As to the school textbook system, shifts were made from the standard textbook compilation in 1873 to the Government licensing system as adopted in 1886 and on to the Government compiled textbook system of 1903. At the end of the war the Government licensing system was revived.

Where changes in the standards of elementary school curricula were concerned, the social and cultural factors of the times determined whether the emphasis was to be laid on a uniform application of the contents of education or on a more flexible approach.

Problems for study:

1) It can be argued that the "cramming system" centred on intellectual education is a hang-over from the days when our nation was endeavouring to absorb Western knowledge and techniques; now one may ask whether future emphasis should not be laid on the fostering of creativity in children through a more careful selection of the contents and methods of education. It is important to make a thorough study of this argument, bearing in mind the propositions put forward in Section "B" of this chapter: "Education Suitable for Different Stages of Human Growth and for Different Individual Aptitudes".

2) Considering the best way in which the Government should define the standard of the contents of education, it is necessary to outline the various measures the Government should take and the role it should play, both in raising the level of basic education and in integrating the teacher's own originality and judgement into the system.

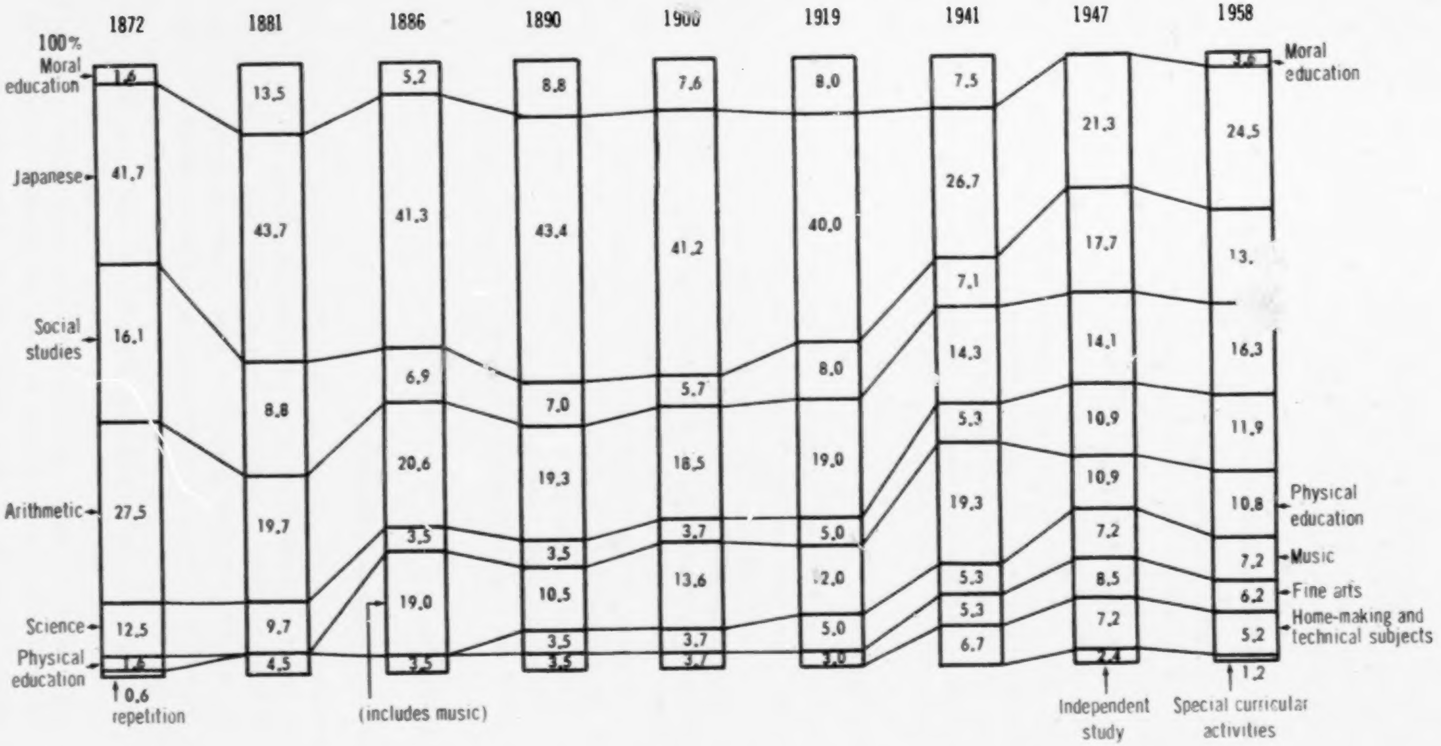
III. Secondary Education

1. Diffusion of Secondary Education

Secondary education in this country was developed somewhat later than popular elementary education and later again than the kind of higher education that was designed for the ruling class. Beginning in 1897, it expanded rapidly and "aimed at having pupils prepare for advancement to schools of higher grades" or else "aimed at having pupils take up jobs at medium-levels and above". School enrolment rates, however, remained at about 20 per cent all through the pre-war years. In the meantime, the enrolment rate for upper elementary schools as a form of semi-secondary education linked with elementary education also rose swiftly, reaching 60 per cent during the pre-war years. After the end of World War II, a newly organised lower secondary school was created as a first stage of secondary education, based on the semi-secondary education of the pre-war years and it became part of the compulsory education system. The enrolment rate for the new upper secondary school, which provides pupils with a second stage of secondary education, has already risen to 75 per cent at the present time. Thus, secondary education, which once only benefited the middle classes, now exists for the masses.

Figure II. A.3

PERCENTAGE DISTRIBUTION OF TOTAL SCHOOL HOURS BY SUBJECT IN PRIMARY EDUCATION
(IN COMPULSORY EDUCATION FOR POST-WAR YEARS)



Note: This figure shows the percentage of the total weekly school hours for boys occupied by each subject, in 8 grades for the pre-war years and 9 grades for the post-war years.

2. General Education and Vocational Education

As indicated below, secondary education in this country has changed since the Meiji Era, whilst trying to achieve and harmonise within the school systems and curricula the dual goals of general education and vocational education. The results, however, so eagerly sought, have not always been positive. The theory and practice of classifying pupils into different courses according to their prospective careers have often been rather different.

a) Since the Meiji Era, secondary school education has been developed along two major lines. Middle schools have catered for general education and vocational schools for vocational education. Schools in the latter category were organised when industrial training, developed at the request of industrialists and on the basis of social demand, became systematised. Basic academic training was also given in such schools.

b) In the middle school category, schools offering general education usually offered some vocational education too, save for certain exceptional periods, as can be seen in the establishment of vocational middle schools in 1894, in the addition of vocational subjects to the curricula of middle schools in 1907 and in the classification of courses in the middle schools into First and Second Categories in 1931. This signifies that at all times many of those enrolled in these middle schools actually took jobs upon graduation. Despite this method of classification of courses in schools of the middle school category, however, students consistently continued to apply for the general course.

c) After the end of the last war, the middle school and vocational school were united into one single upper secondary school in which the courses were classified into a general course and a vocational education course. But, because of the enrolment growth during the subsequent years, expedients were taken such as streaming the pupils into the courses most suitable for their future careers.

In this connection, however, there was a discernible trend for students to prefer the more academic Category B to the more general Category A.

3. Contents of General Education

In general secondary education there has been a consistent trend, ever since the Meiji Era, towards reducing the number of school hours allocated to the study of Japanese and foreign languages and, in contrast, to increasing the number allocated to "social studies", "science" and "mathematics". Thus, the number of school hours allocated to each of these five subjects is now roughly the same. In addition, similar changes have been made in elementary education in the case of subjects like "physical training", "arts", etc. (Figure II.A.4).

4. Contents of Vocational Education

In the vocational school, technical subjects and practical training were important from the outset, but the importance of general education subjects increased as times changed. In the newly organised upper secondary school, the increased importance of general subjects has caused a decline in the number of school hours spent on technical subjects within the vocational course (Figure II.A.5).

Problems for Study:

1) When the post-war school system was inaugurated, few people expected the enrolment rate for upper secondary schools to climb to more than 75 per cent. Since the second stage

Figure II.A.4

PERCENTAGE DISTRIBUTION OF TOTAL SCHOOL HOURS BY SUBJECT IN SECONDARY GENERAL EDUCATION INSTITUTIONS

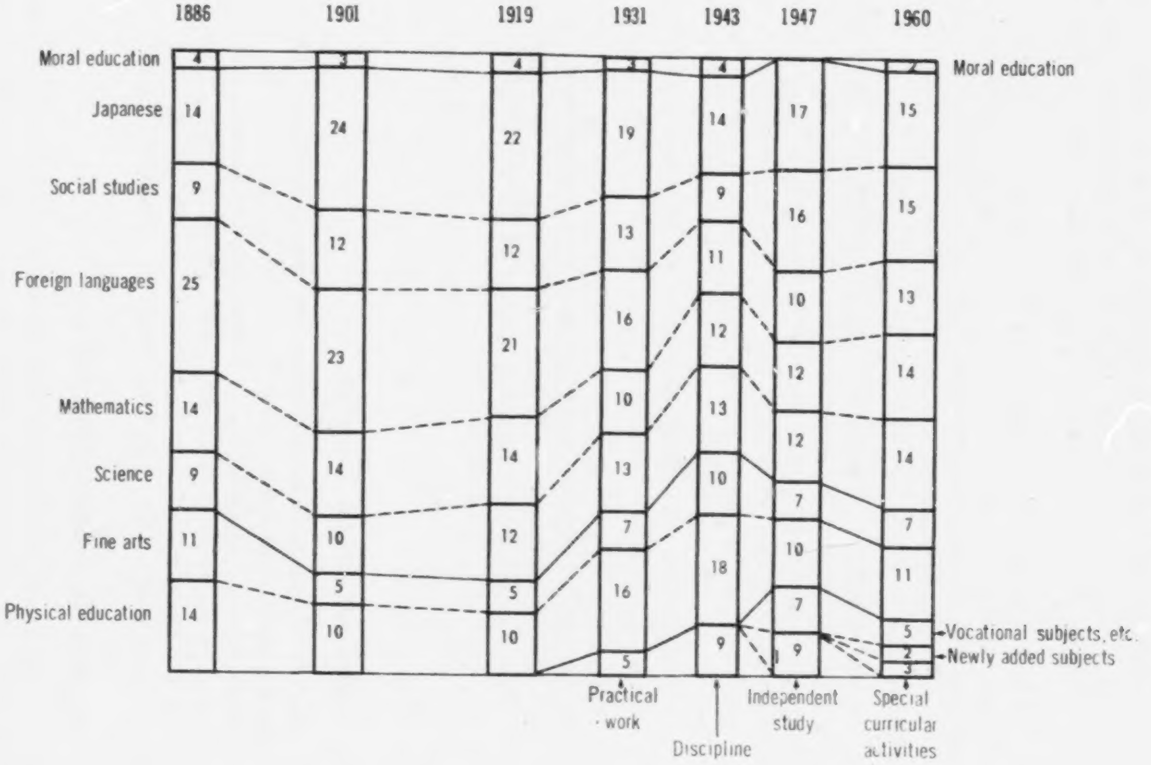
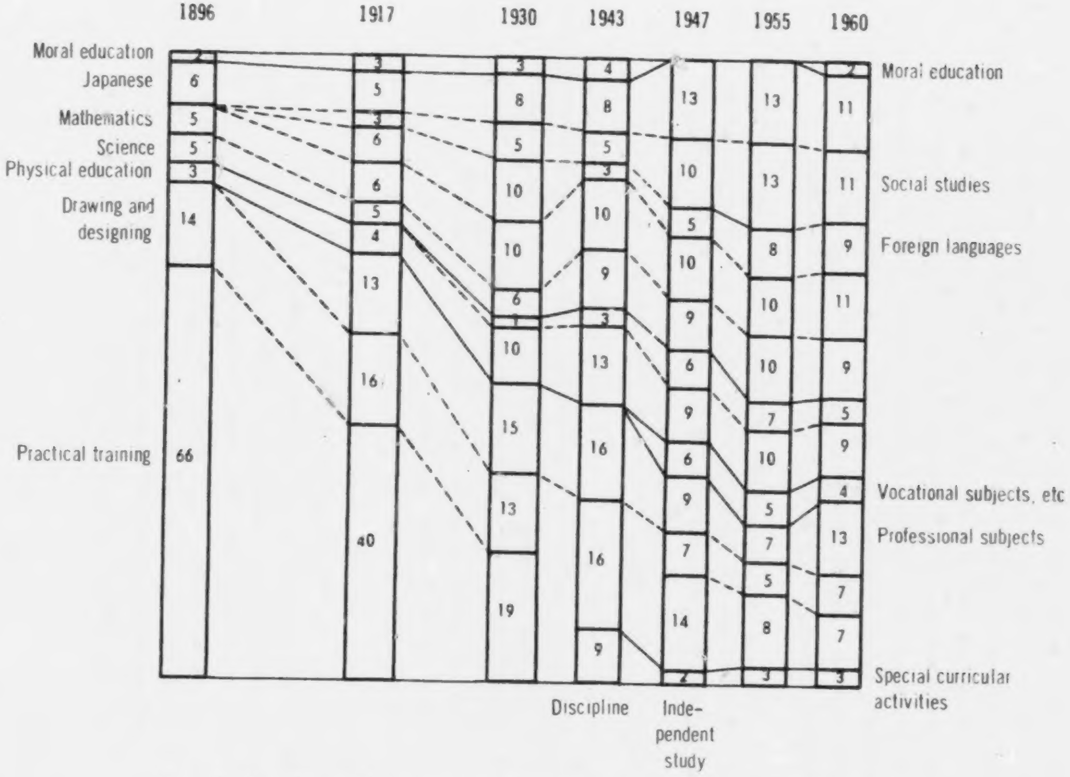


Figure II.A.5

PERCENTAGE DISTRIBUTION OF TOTAL SCHOOL HOURS BY SUBJECT
IN SECONDARY VOCATIONAL EDUCATION INSTITUTIONS (INDUSTRIAL COURSES)



Note: Metal work or mechnics courses of secondary vocational schools for the pre-war years Lower secondary schools and industrial courses of upper secondary schools for the post-war years of secondary education has now become indispensable for the majority of people, it is necessary to study the advantages and disadvantages of the current school system once more, considering, in particular, the division currently made between the first and second stages of secondary education, as well as the separate issue of the period of compulsory education.

2) With the increasing diffusion of the second stage of secondary education, differences between pupils have increased. Since this education is the last that such pupils receive before entering the labour market, it is vital that their courses should become more closely orientated to their individual abilities, aptitudes and future careers and should help them adapt to their respective work situations. Previously it proved difficult, because of the factors indicated, to provide a well-balanced selection of courses for individuals. Now we must try to overcome the inherent difficulties and provide a second stage of secondary education more satisfactorily diversified. It should be noted, especially, that the general course is valuable for those pupils who do not go on to advanced schools and who, for example, may take jobs where no specific knowledge or techniques are required.

a) In schools today, pupils are often assessed on their performance in those intellectual subjects which provide access to higher education. Career guidance is similarly based. The development of a more scientific approach to student guidance has been slow. What is wanted is a more positive form of guidance which would consider the whole personality of the pupil and all his various aptitudes.

b) Under the school system today, in which the selection of certain courses virtually negates a pupil's chance of going on to higher education, even when the selection of such courses is most suitable for him, the pupil does, of necessity, acquire a feeling of frustration, and it becomes difficult to provide him with guidance for his future.

c) There are lots of incoming pupils who choose the general course even when expecting to take jobs immediately after graduation, simply because they find it hard to decide on the specific type of job they might choose in the future.

3) Past changes in the content of secondary education have shown a tendency for the importance of subjects to even out in general education, and a tendency for the importance of general subjects to increase within vocational education. A rather negative approach has been observed in the introduction of practical courses into education without the benefit of a theoretical frame of reference, and this despite the gradual growth of technical training in schools in general. As mentioned in 2) above, when considering the contents of education appropriate to a diversified second stage of secondary education, one should make a careful appraisal of past tendencies. One should decide on the modification or redirection of such tendencies in light of the changed role of secondary education in society.

IV. Higher Education

1. The Spread of Higher Education

Higher education in this country, implemented prior to secondary education to foster the country's leaders, has been continuously expanded to meet the popular demand for education and the social demand for a more highly qualified labour force. This was illustrated by the increase of Imperial Universities after 1897, the institution of a technical college system in 1903, the approval and establishment of public and private universities after 1918, the higher education expansion programme of 1919, and so forth. Before the war, however, the Government still spent more heavily on lower education than on higher education, it was extremely difficult for girls to obtain higher education and the establishment of private universities was strictly limited. Thus the enrolment rate for higher education remained lower than 5 per cent of all young people 18-19 years old, in spite of the pressures towards expansion.

In accordance with the policy of equality of educational opportunity and in response to the social demand the chances for higher education became markedly more favourable after the war. By 1965 the enrolment rate for higher education reached 25 per cent of all boys and 11 per cent of all girls aged 18-19 years, with pressures for further expansion still being felt.

2. The Increase in the Importance of Private Universities

In pre-war years private universities were looked upon as mere subsidiaries of national universities. At the end of the war, however, it became easier to establish them and their number increased, though the creation of a private university called for careful screening so that specific standards were always met. At that time the Government was faced with a heavy programme for the rehabilitation of war-destroyed school buildings in addition to the costs of the extended school-leaving age and the growth in the numbers of children of school age, and was, therefore, unable to keep pace with the quantitative needs of higher education. The result of this situation was that private universities met the increased enrolment and today they absorb about 75 per cent of university students. Seventy per cent of these private institutions, for financial reasons involving their cost and upkeep, are located in seven large cities and only 24 per cent of them specialise in science. This is the main reason behind the uneven distribution, both in regional and academic terms, of higher learning in Japan today (Figures II.A.6 and II.A.7).

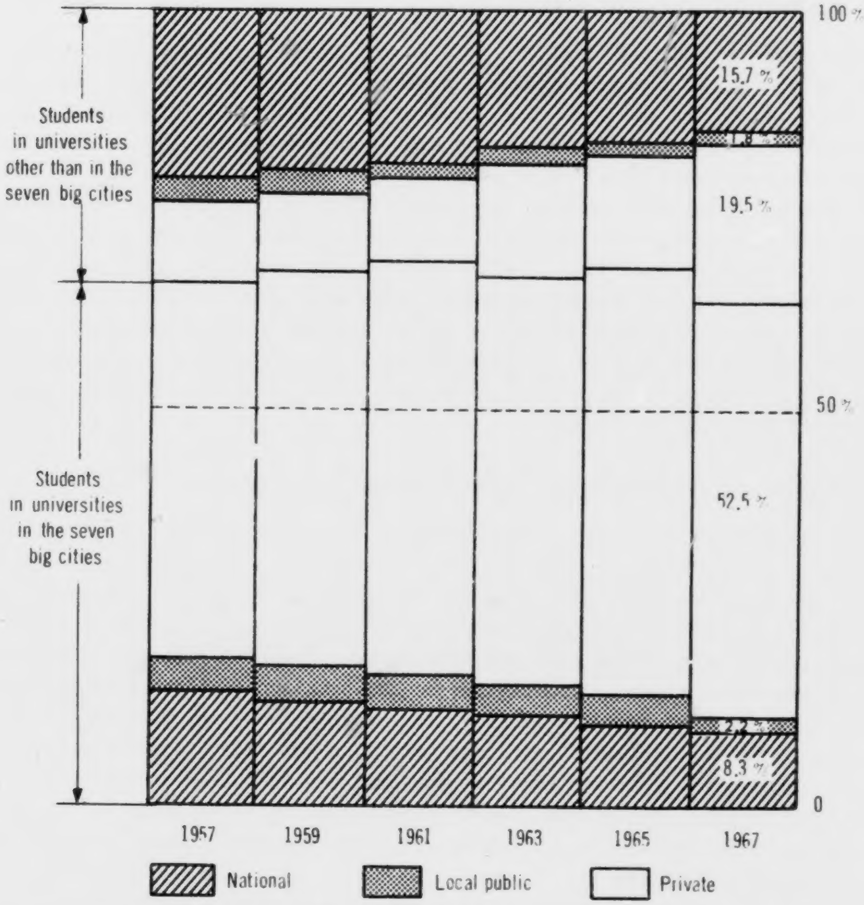
3. The Function of Education and Research in the University

Under the Education Order, the university was created as an institution of specialised education in which the "advanced sciences" would be taught. The recognition of the value of post-graduate work became evident following the inauguration of the post-graduate programme in Tokyo University in 1880 and research facilities gradually got under way in each faculty so that the university soon became a centre of both education and research. Thereafter, under the Imperial University Ordinance, promulgated in 1886, these functions were split into the university colleges and post-graduate schools. In practice, however, each faculty still fulfils the two roles. Under the 1918-19 reforms, provision was made attaching the post-graduate courses to each faculty and establishing the post-graduate school as the co-ordinator of these courses. Thus, the research system was clearly formulated. Under this system importance was given to the research function of each faculty with the close collaboration of the graduate school and the faculties ensured.

After the war the newly designated universities, inaugurated along with the old-style secondary schools, higher technical schools, normal schools, etc., as well as the old-style universities, were conceived as unitary systems, or academic centres wherein "exhaustive instruction and studies of specialised liberal arts and sciences should be carried out". Now, however, many universities which do not have post-graduate courses adopt the department system and show a substantial difference in the structure of their academic studies from those universities which have post-graduate courses. Some universities have institutions such as faculties of liberal arts and sciences which are organised mainly for educational purposes and which we find hard to regard as "academic".

Figure II.A.6

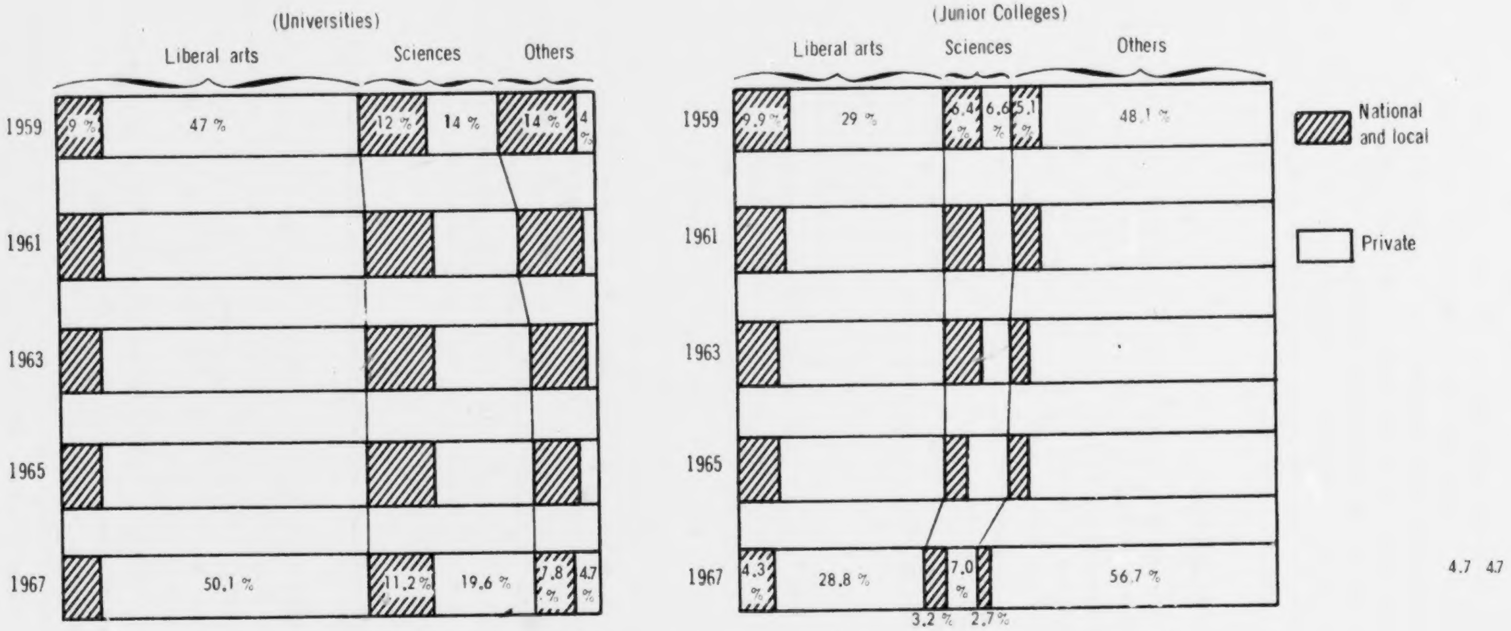
PERCENTAGE OF THE TOTAL NUMBER OF UNIVERSITY STUDENTS WHO WERE ENROLLED IN UNIVERSITIES LOCATED IN THE SEVEN BIG CITIES, 1957-1967



Note: «Universities in the seven big cities» means universities (including junior colleges) the main buildings of which are located in Tokyo (city area), Yokohama, Nagoya, Kyoto, Kobe and Northern Kyushu. The number of students includes the number of students enrolled in graduate schools, advanced and short-term courses of universities.

Figure II. A.7

PERCENTAGE DISTRIBUTION OF THE TOTAL NUMBER OF STUDENTS IN HIGHER EDUCATION INSTITUTIONS BY MAJOR FIELD OF STUDY (1959-1967)



Note : 1. The number of students includes only the under-graduate students of universities and regular students at junior colleges.

2. «Liberal arts» includes literature ; law, politics, commerce and economics ;
«Sciences» includes science ; engineering ; mercantile marine ; agriculture ; medicine, dentistry and pharmacy ; and
«others» includes nursing, home economics, physical education, teacher training, fine arts and general education.

After the last war the post-graduate courses in the universities offering them were legally defined as institutions independent of the faculties themselves, and their real independence was somewhat strengthened. Nevertheless, the post-war post-graduate course is still similar to its pre-war counterpart, with the body of post-graduate courses attached to each faculty. This is partially due to the inadequate fulfilment of their basic pre-conditions. Moreover, there has been a rapid increase in the number of research institutes established independently of the faculties. This has risen out of the need for academic studies. A considerable number of these institutes are designed for joint use among several universities.

4. Education and Student Guidance

The capabilities and awareness of newly enrolled students have undergone great changes in the post-war years and their average age is younger than before as a result of the quantitative expansion of higher education. It has, therefore, become increasingly necessary to provide them with more pertinent guidance than in the past, in helping them both personally and in their studies. In reality the present system of education and guidance is far from adequate. It can scarcely be claimed that the teaching staffs, immersed in their own special studies, have sought meaningful human contacts with the student body. Moreover, while a licensing system was enforced for teachers in the old secondary schools no comparable system is employed for present upper secondary school teachers.

5. General Education

Institutions of higher learning in this country were originally developed for technical education. The old secondary schools were inaugurated later. These focussed on general education. There was no tradition during the pre-war period of providing both technical and general education at the same time within the same institution of higher learning.

In the post-war years general education was introduced into the newly styled universities in order to achieve a "balanced integration of general education and technical education". This was based on the reflection that previous concepts of higher education had resulted in "a poor provision of general education for students and had become too specialised". This educational philosophy was given considerable theoretical support but many questions have since been raised, particularly regarding its effectiveness in terms of real education. It has been criticised in terms of its educational content, the problems of enforcing it, etc. It cannot be argued that this philosophy has become widely accepted, even though twenty years have elapsed since its official adoption.

6. The Demand for Specialisation and the Trend towards the Unification of the School System

Before the war higher education was split between the university and the higher technical school. After the war, these institutions, which had at one time been amalgamated, were separated once again, with the college system becoming permanent and with the creation of technical colleges. There were even some who thought that the university itself should be divided into a general university and a post-graduate school.

All through this period, however, counter movements were being attempted for the unification of the system into one solitary section for higher education. This was illustrated by the technical schools' campaigns to raise their status to that of the universities, an occurrence explained largely by the inferior social status suffered by their graduates. Similarly people are trying today to create graduate schools within the universities and are objecting strongly to any plan that would involve the categorisation of institutions of higher education.

7. The National Government's Part in the Establishment of Institutions of Higher Education

During the years before the war the expansion and development of higher education was based on national schools. Afterwards, however, "the basic assets system" for private schools was abolished and the conditions for the establishment of such schools were relaxed with the Government acknowledging such schools'independence and individuality. In fact, government agencies have been deprived of most of their pre-war powers over higher education. Since the national Government has failed to develop any rational co-ordination of university growth, it has become incapable of directing higher education as a whole. Its sole function now is to prevent the establishment of unqualified institutions by screening them under the terms of the University Establishment Standard. When in 1965, as a result of society's demand for science and engineering graduates, university applications showed a sharp increase, all the Government could offer were subsidies to private universities planning to establish either or both types of faculties. Even in the national universities, where the Government has full powers for direct intervention, all the Government now does is to encourage the growth of those disciplines which the private universities find difficult to handle.

8. The National Government's Part in the Maintenance of the Standards of Institutions of Higher Education

In pre-war years, the Government exercised strict supervision over the private universities through a "basic assets preparation system", through its approval of teacher appointments and its stipulation and modification of university regulations. It also controlled the national higher technical schools through its selection of teachers and its stipulation of requisite curricula subjects, number of school hours per week, etc. Since the war, however, the Government has been divested of its powers over the private schools and has delegated its controls, including the selection of teachers, to the national universities. Consequently, excepting its extension of financial support to universities and its supervision of items specifically stipulated by the laws and ordinances concerning personnel affairs, accounting, etc.,the Government's main task has become purely advisory.

9. University Administration and Management

Before the war, any discussion of the university's traditional autonomy, calling for autonomous administration and management, usually focussed on the procedures concerned with the selection of teaching staff. After the war, autonomy over the selection of staff was granted to all national universities to ensure academic freedom. No co-ordinated system was formulated, however, for definition and administration of the university's various functions. Traditional practices persisted.

In the management of the universities since the war the following fundamental deficiencies have been marked:

a) In the climate of the post-war trend towards democratisation, the general council, faculty council and other representative organs have come to be regarded as superior managerial bodies responsible to such single appointees as the university president, faculty dean, etc., whose ability to exercise their discretionary powers has consequently been restricted. As a result, cases often occur where the person responsible for administration is prevented from carrying out his designated function, finding it difficult to improve managerial and administrative policies or to take appropriate steps in prompt response to the changes both within and without the university.

b) Cases sometimes occur where the autonomous personnel administration in charge of the teaching staff prevents disciplinary measures against them and therefore obstructs positive personnel reform or encourages irresponsible behaviour.

c) The authority of the faculty council, in the name of academic freedom, has been disproportionately extended, often at the expense of the university's own autonomy. Consequently, even in the case of problems calling for unified views and the concerted action of the entire university, individual faculty views have sometimes predominated. It has even become difficult to think of the university as a coherent whole.

d) Lots of cases arise where the solution of problems is made difficult by abuse of the principle of university autonomy. The university, for example, has no way of dealing with those students who use the campus for their own purposes in the name of 'autonomy', although this principle was originally and solely designed to guarantee freedom of study.

Problems for Study:

1) The tendency to diffuse and popularise higher education presents many problems, because the quantitative expansion occurs within universities still operating on traditional lines. Any plan for solving these problems should begin by assessing the ideal role of higher education in society today. The popularisation of the universities should form its major premise. Then a definitive policy should be worked out, dealing with the following questions:

a) To what extent can the traditional philosophy, structure and organisation of the university, in which research is paramount, be made compatible with the expansion of higher education, given that the educational and research functions of the university are expected to become increasingly separate?

b) Judging from the accomplishments of general education in higher education during the past twenty years, is it possible to attain the original goals by improving conditions or is a drastic reform of the system really necessary?

c) Is it not necessary to encourage within the university a more efficient administration, capable of adapting spontaneously to the times, rather than endangering academic freedom by Government directed reforms?

d) In the past the so-called "binary school system" always had to give way to pressures to unification. Would it not, therefore, be advisable, as higher education expands, to study ways of developing institutions of higher education which would retain the merits of the categorised institutions on the one hand, and overcome, on the other hand, the trend towards a unitary system of higher education?

2) In view of the impossibility of implementing a rational expansion and adjustment of institutions of higher education without the co-ordination and the financial assistance of the Government, it appears necessary to make a fundamental reappraisal of the role the Government should play in order to attain an overall co-ordination of all national, public and private universities. Particular attention should be paid to the following points:

a) While there are problems to be solved in the present situation, reversing to the pre-war system is out of the question in view of the current administrative structure; it would prove impractical today when so many new institutions of higher learning have been established.

b) Systematic adjustment of all institutions of higher education is impossible at the moment because of the wide differences between the financial aid given by the government to national universities and public and private universities.

c) If the maintenance and management of many private universities is found to be difficult without comparatively extensive public assistance, the present method for approving the establishment of such universities should be re-examined.

V. Teacher Training

1. The Basic Concept of Teacher Training

When the Education Order was first promulgated, the role of the teacher, a person acquainted with Western science, was seen as a "transmitter of knowledge". Therefore, in training teachers the main emphasis was laid on the teaching methods. In the decade following 1877 the teacher was looked upon as a moral person and, as such, was accorded a high status. From this developed a tendency to concentrate in teacher training on moral education. This was confirmed in the Normal School Ordinance of 1886 and in the Imperial Prescript on Education of 1890. The importance of morality has, since that time, remained a cornerstone in teacher training in Japan.

In the reform of the school system after the war, emphasis was laid on trainee teachers acquiring a general cultural background and pedagogical techniques as well as more specialised knowledge. The Central Council for Education emphasised in 1958 the need for these elements to be complemented by the teacher's own sense of mission and affection for the school children in his charge.

2. Teacher Training Institutions

When the Education Order was first promulgated, normal schools had already been established as such, before the diffusion of general schools. Applicants had to be about 20 years of age. Following the increased demand for qualified teachers, a result of the spread of elementary education, the age limit was lowered and normal schools were positioned within the general education system. They ranked at the level of secondary education for about 70 years but were promoted to college level in 1943 and university level in 1949.

3. The Demand for Teachers and the Number of Trained Teachers

In the pre-war years, elementary school teachers were theoretically trained in normal schools. In practice, however, they were often recruited by means of a teachers' certificate examination. A system employing unqualified subsidiary teachers was also instituted to meet the growing demand. In the post-war years, measures were taken to authorise teacher training in the ordinary university faculties as well as in the teacher training faculties but, in practice, few such courses were ever given. Therefore, the national Government decided to fill about 90 per cent of the required number of teaching posts with teacher training faculty graduates, adopting a policy of systematic training solely to meet the needs of compulsory education. Recently, however, the ratio of teachers trained in teacher training faculties to those otherwise trained has fallen because of a rise in the number of employed teachers. During the pre-war years, the greater part of secondary school teachers came from universities and colleges, with the graduates of higher normal schools and provisional teacher training institutes assuming a relatively small proportion. After the end of the last war, the national Government decided to increase the numbers of the teachers in lower secondary schools as well as elementary schools in a programme aimed at filling about 60 per cent of lower secondary school teaching posts with the graduates of teacher training faculties. The door was also opened to the students of ordinary faculties to obtain a teacher's license by taking the specified credits. Only a fraction, however, of those who acquired a teacher's license in this way, actually entered the teaching profession. In the case of upper secondary schools, most posts have been taken by graduates of the general faculties. The training faculties have chiefly trained teachers for subjects not adequately dealt with in the general faculties. Even so as a result of the diffusion and diversification of upper secondary school education, in the case of new subjects such as "industrial education", it is often difficult to find qualified teachers.

In conclusion it can be seen that, whereas in the pre-war years teachers were mostly trained in institutions specifically created for that purpose, their graduates only met part of the real demand, whereas in the post-war years, with the training system amended by an open-door policy, the actual importance of teacher training institutions has increased rather than decreased.

4. Adjustment of the Teacher Supply-and-Demand Relationship

Until 1943, excepting the early Meiji Era, it was the Prefectural Government that established a normal school and the Prefectural Governor who appointed teachers. In those days normal school graduates were compelled to take the teaching jobs and the Minister of Education was empowered to co-ordinate the supply of and demand for teachers. Since the end of the war, teacher training faculties, as national universities, have come under the jurisdiction of the national Government which directs the teacher training programme in an effort to co-ordinate regional supply and demand. The right to appoint teachers, however, remains in the hands of local public authorities with the result that problems still arise in making supply meet demand.

a) There are cases where graduates cannot find jobs easily because of the differences between the Prefectural Government's recruitment programme and the teacher training programme of the local university.

b) This problem is becoming intensified as the inter-regional mobility of school age children increases.

5. Female Teachers

During the Meiji Era, when few girls went on to advanced schools, the Government took a positive attitude toward women teachers by creating girls' normal schools, In 1918, however, the Provisional Education Congress recommended that the percentage of females in the total number of teachers be limited. The reason given was that an unrestricted increase in female teachers would pose a problem in raising "sturdy and serious" people. Similarly, in 1938 the Education Council recommended that the number of students attending normal schools should be regulated and that the ratio of male and female elementary school teachers be fixed at two to one.

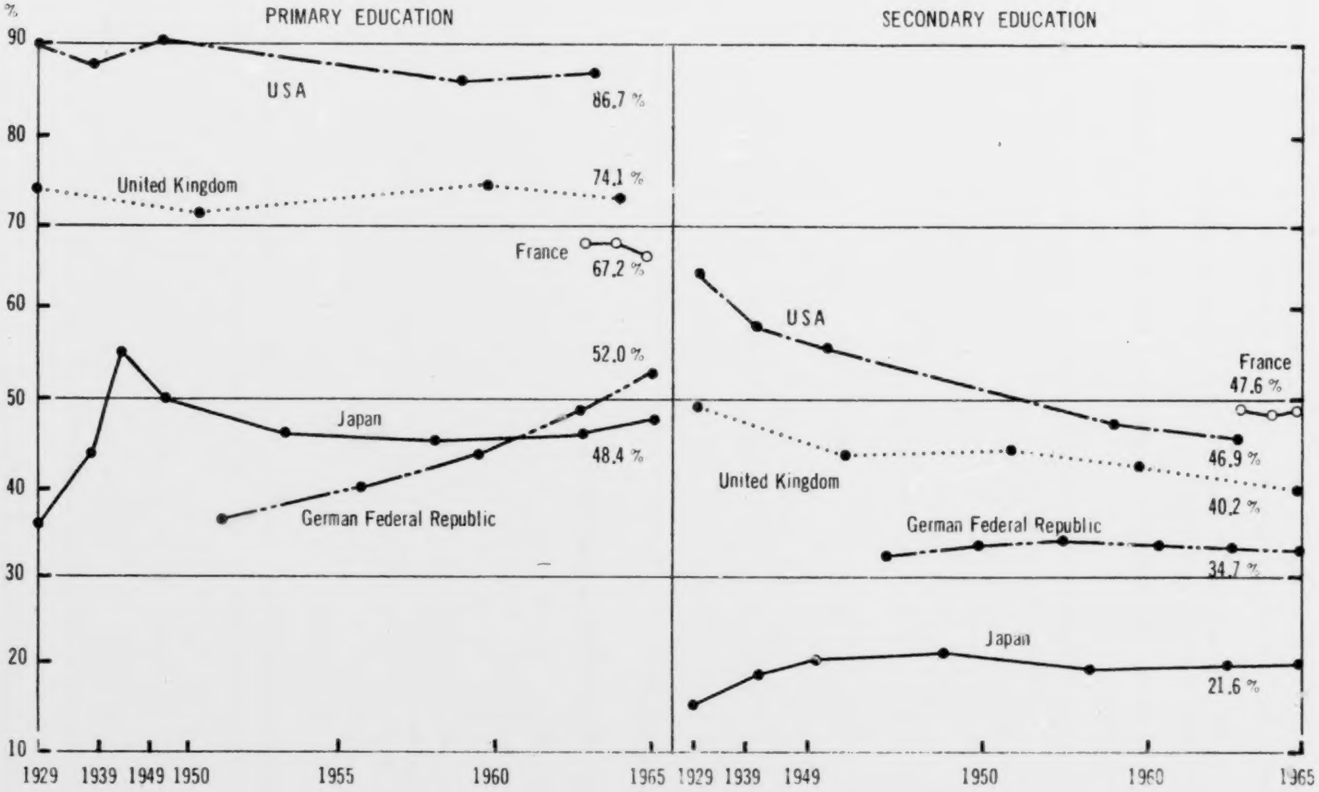
In the post-war period, however, all such restrictions were lifted in accordance with the full realisation of the principles of co-education. Nevertheless, with the marked increase in female teachers becoming a new problem, the Central Council for Education recommended in 1958 the consideration of an appropriate ratio between male and female teachers with reference to teacher training (Figure II.A.8).

Problems for Study:

1) With regard to teacher training, the basic aim is to give teachers a good cultural

Figure II.A.8

PROPORTIONS OF FEMALE TEACHERS IN PRIMARY AND SECONDARY EDUCATION IN FOUR SELECTED COUNTRIES AND IN JAPAN



background, a taste for academic pursuits, technical knowledge, specialised knowledge and technical skill relating to the teaching profession, a sense of mission, and high ideals. However, with the visible discrepancies existing at present in teacher training for specific school levels or specific subjects one must consider how better to secure teachers of the requisite calibre. The following points merit consideration:

a) How to raise the quality of teacher training institutions and their curricula, thereby enriching the contents of education.

b) How to extend the research programmes for teachers and to improve continuously the teachers' capabilities.

2) The ultimate objective of teacher training is to secure an adequate number of superior teachers. Therefore, it is necessary to study measures for making the teaching profession more attractive to young people.

3) In view of the inter-regional imbalances in the supply-and-demand relationship, it is necessary to give due consideration to the average number of students in teacher training faculties in each region and to study measures to facilitate the co-ordination of supply and demand.

4) The proportion of female teachers is expected to show a continued rise in the future. With regard to the advisability of fixing a limit on such employment, it is necessary to study this question, not only as a recruitment problem but considering also what sort of influence the ratio of male to female teachers might exert upon the personality development of school children.

VI. Pre-School Education

1. The Role of Kindergarten Education

Early in the Meiji Era the kindergarten was seen as an appropriate institution for the education of small children. Its protective role, however, became increasingly emphasised, and its use as a nursery school or even day nursery gained recognition. Its educational and protective roles were separated at the end of the last war by the School Education Law and the Children's Welfare Law of 1947. Yet the two complement each other nonetheless. This may be due to the failure of the national Government to pay adequate attention to this phase of its educational policy. It is interesting to note the following ideas which were presented in connection with the separation of these two roles:

a) The Education Renovation Council recommended in 1946 that the kindergarten and nursery school should be differentiated by the age of the children to be accommodated.

b) Papers published jointly by the Ministries of Education and of Welfare in 1963 advised that kindergartens should be held responsible for the education of small children while nursery schools should be responsible for small children and school children in need of such daily care. In cases where nursery schools took care of children of kindergarten age, similar education to that provided by kindergartens should be given.

2. The Content of Education in Kindergartens

While it had long been maintained that kindergarten education should be conducted along lines quite different from those used for elementary school education, there has been a consistent tendency toward giving early school instruction in kindergartens; this tendency was pointed out in a recommendation presented by the Education Council in 1938. There have, however, been few thorough studies made of the most satisfactory age for beginning elementary school. The current age for starting school is six years.

3. The Diffusion of Kindergarten Education

Kindergarten education spread rapidly during the post-war years. There are still a great many problems to be solved, however:

a) The kindergarten's scope is limited because of the restrictions imposed by small children's attendance capabilities, but the situation is further complicated by corporations or individuals managing kindergartens on an unsound financial basis. Making any serious qualitative improvement is, therefore, difficult (Figure II.A.9).

b) The service of kindergarten teachers tends to be rather short and a considerable percentage of kindergarten teachers are only subsidiary teachers (Figure II.A.10).

c) Public kindergartens are in short supply in many regions and have to compete, in many cases, with public nursery schools.

Problems for Study:

1) How to co-ordinate the functions of kindergartens and nursery schools in pre-school education constitutes a difficult question, judging from their respective developments to this date. In view of the present confusion, however, we must consider a rational adjustment of these two systems.

2) It is necessary to re-examine the position of pre-school education within the school system, reconsider the starting age for elementary education and determine also whether or not pre-school education should be made compulsory. This can be done in accordance with the Council's findings as recorded in "B: Education suited to the Stages of Growth of Individuals and to their Individual Abilities and Aptitudes" which are dealt with shortly.

3) Up to the present time mainly privately-operated kindergartens have met the needs of pre-school education. In view of the geographic and economic limitations placed upon them, it is now necessary to study the Government's role, and that of local authorities also, in the promotion of kindergarten education in the future.

B. EDUCATION SUITED TO THE STAGES OF GROWTH OF INDIVIDUALS AND TO THEIR INDIVIDUAL ABILITIES AND APTITUDES

I. Stages of Growth and the School System

1. School Education adapted to Each Stage of Growth

1) Human growth

In considering the school system appropriate for each stage of growth, it will be necessary, first of all, to define what is generally accepted about human growth.

a) Human behaviour changes in response to its environment, and the individual grows not only in biological terms but by learning to adapt to the cultural and social conditions in which it finds itself.

Figure II. A.9

PERCENTAGE DISTRIBUTION OF THE NUMBER OF PRIVATE KINDERGARTENS
BY THE KIND OF ESTABLISHING BODIES

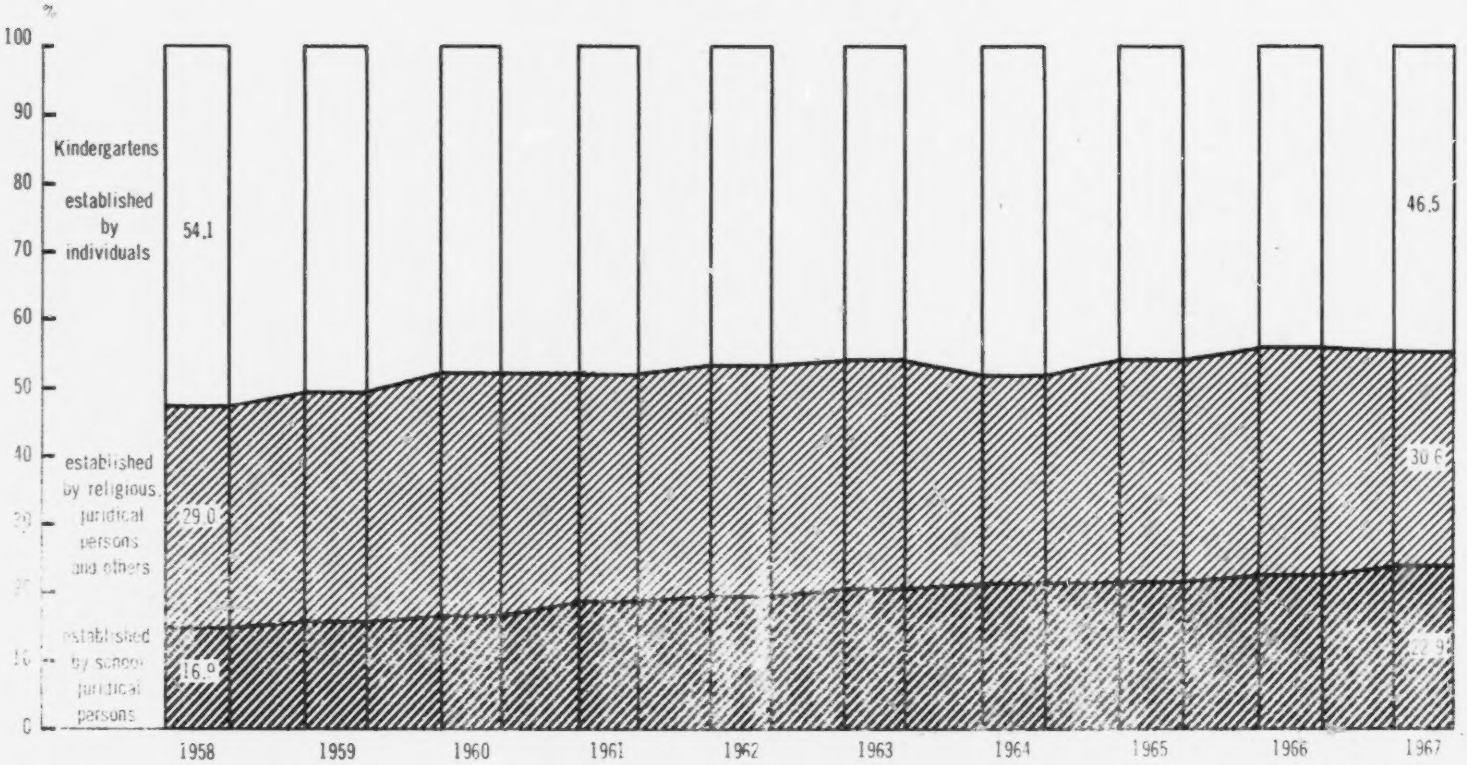
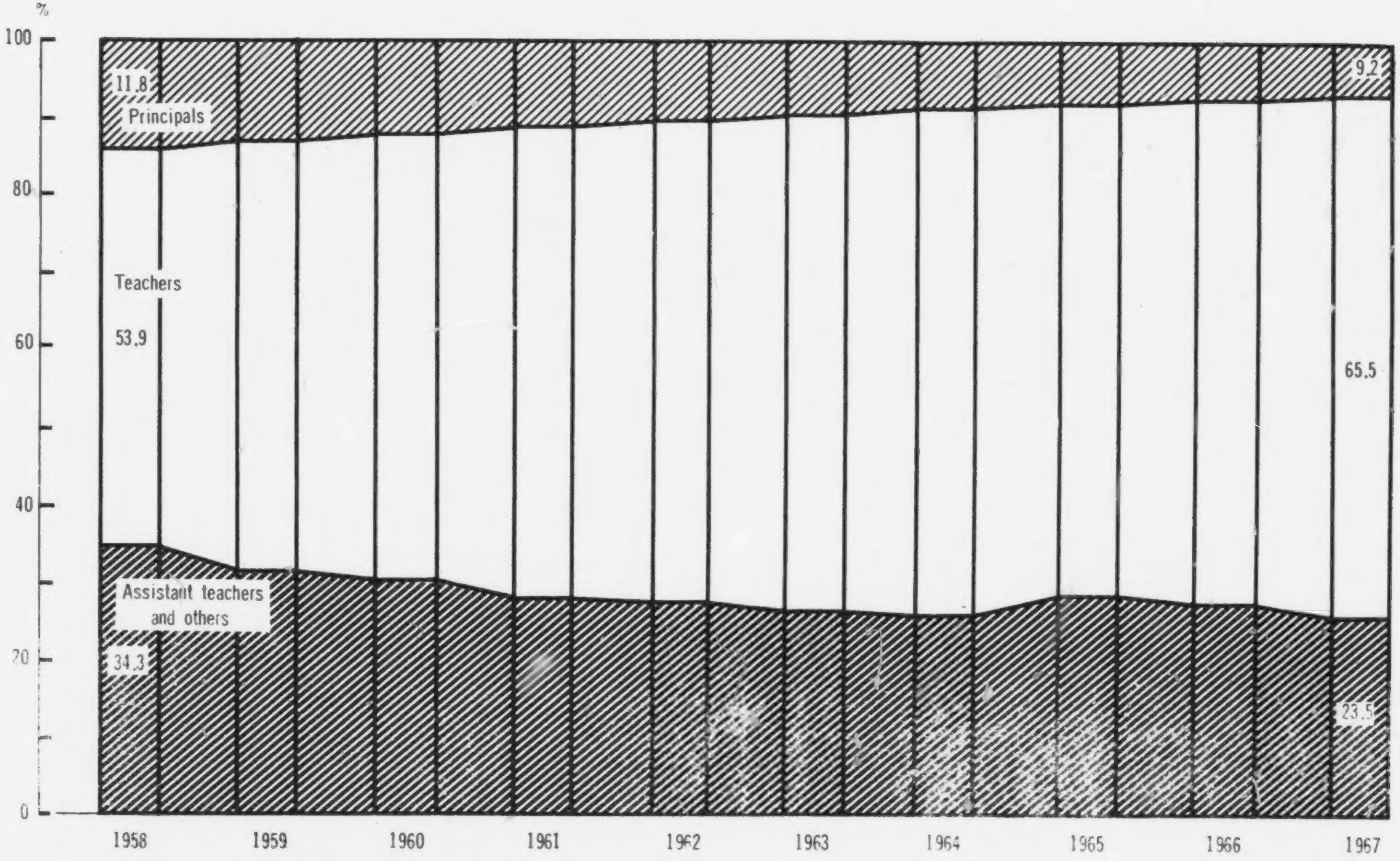


Figure II. A.10

PERCENTAGE DISTRIBUTION OF TOTAL NUMBER OF FULL-TIME TEACHERS
IN KINDERGARTENS BY THE TYPE OF POSITION



Note. «Others» includes kindergarten nurses and assistant nurses.

b) Whilst the individual's mental and physical growth is of such a continuous nature that it is difficult to classify it into clearly defined stages, many scholars have pointed to different stages of growth, basing their classifications on the average features of those stages. Piaget, for instance, classifies the growth of intelligence into the following stages:

i) Stage of sense and exercise (0-2 years old)
ii) Stage of symbolic and pre-conceptual thinking (2-4 years old)
iii) Stage of intuitive thinking (4 to 7-8 years old)
iv) Stage of specific operation (7 to 8-11 years old)
v) Stage of formalistic operation (11-15 years old)

c) Differences in human growth are found in different periods of history. In this country children have tended to grow more rapidly in recent years (Figure II.B.1). Mental growth and athletic prowess are said to have increased at the same time but there is, as yet, no proof of this.

2) Education suitable for each stage of growth

Those who believe that a suitable form of education exists for each stage of growth base their thinking on a belief in stages of educability. But whilst some argue that educability develops with biological growth, others contend that educability is itself created by intellectual stimuli. Yet another school of thought attaches little or no importance to this concept, but holds that intellectual growth depends on teaching methods alone.

All of these views consider what can be taught and when, but they do not indicate what the most significant factor in personality development will be at a given stage of growth. It is necessary to study this point more comprehensively.

3) Ways of thinking about the school system

In designing a school system it is important to take each stage of the growth of intelligence into account. It is equally necessary to consider the following points:

a) Thinking in terms of stages of growth, one tries to design schools suitable for the "average" child. In the context of school education one considers, that is, the "group". If it is indeed possible to educate children at a certain stage of growth under a special programme, one must consider how far this can be accomplished on a "group" rather than on an "individual" basis.

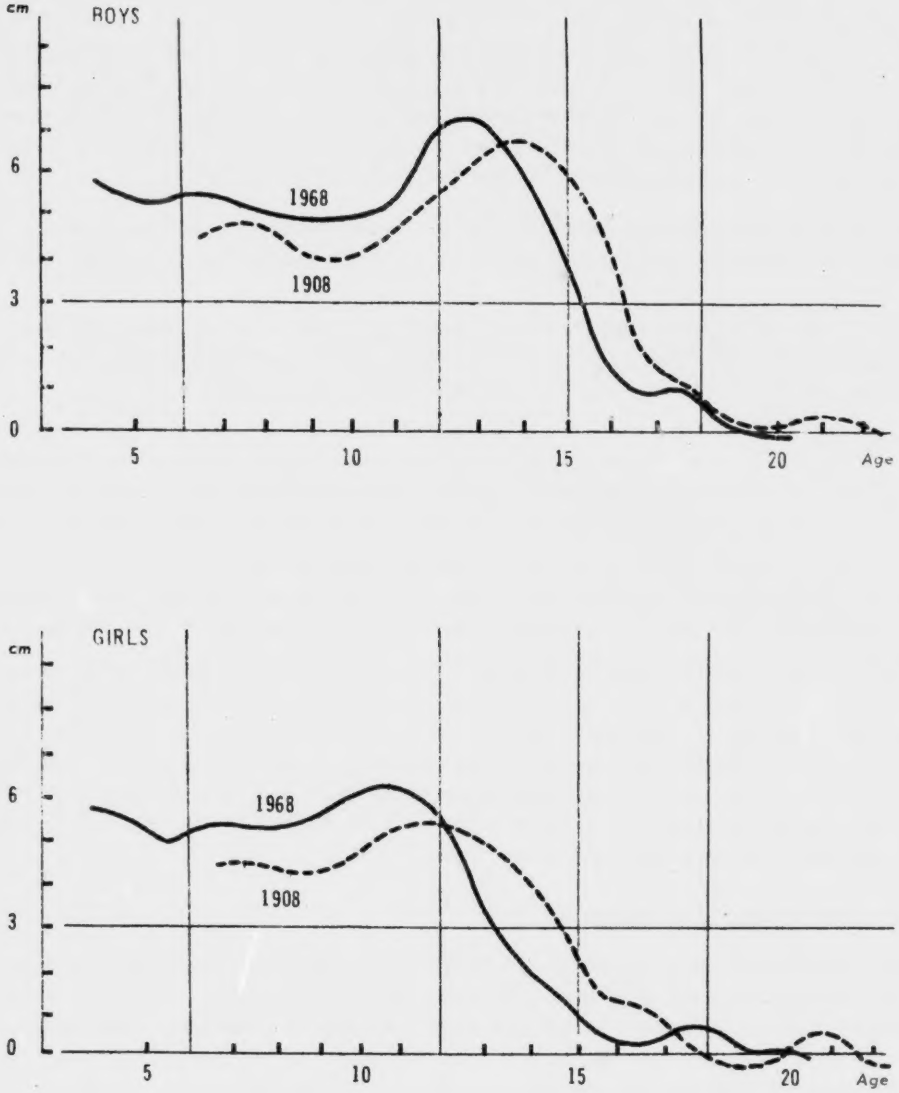
b) In school, the characteristics of groups of children from junior and senior grades, all at different stages of growth are important. In designing a school system one must consider the effects of interaction amongst children at different stages of growth.

c) Furthermore, a rational school system should be one in which each stage of education is clearly defined. The classification of courses should be easily made on a basis of the pupils' future career expectations, their abilities and their aptitudes. At the same time, the consistency of the curricula should be maintained.

d) If personal guidance appropriate to the stage of growth of individual school children and pupils is given as a result of changes in educational methods, the whole concept of the school system may undergo an extensive change.

Figure II.B.1

TRENDS IN THE RATES OF PHYSICAL GROWTH FOR BOYS AND GIRLS



2. Stages of Growth and the Appropriate Age for Beginning Institutionalised Group Instruction

1) The Effects of Pre-school Education

Various theories consider the different rate of growth of the capabilities of small children, but none of them help in deciding on the ideal age when institutionalised group instruction should be started. Various studies and surveys have examined the effectiveness of the present system, but these raise further considerations such as, for example, the significance of family circumstances, the quality of pre-school education, the best way of measuring the effects of education, etc. One such survey conducted by the National Institute of Education checked the intelligence quotients of schoolchildren, categorised according to their parents' income, and used records of the children's scholastic achievements and behaviour during their elementary and lower secondary school days. It tried to determine whether or not there were any differences between those who had received pre-school education and those who had not. This survey pointed out the following (Figure II.B.2).

a) The effects of pre-school education become less visible as children advance to higher grades, but desirable results are observed at least during the elementary school period.

b) The effects of a pre-school education based on "play" are remarkable on the intellectual growth of small children. The impact on their social and emotional growth is of less significance except in some cases where improvements are discernible.

c) Comparing children who attended kindergartens with those who attended nursery schools, the former, in scholastic and behavioural terms, performed better on entering elementary school than the latter. It is not clear, however, whether this represents the effects of kindergarten education or results from other factors such as family circumstances and parental income.

d) With regard to the duration of pre-school attendance, better results are obtained from two years' attendance at nursery school than from half a year or one year's attendance. Not enough information is available to assess the value of three years' attendance.

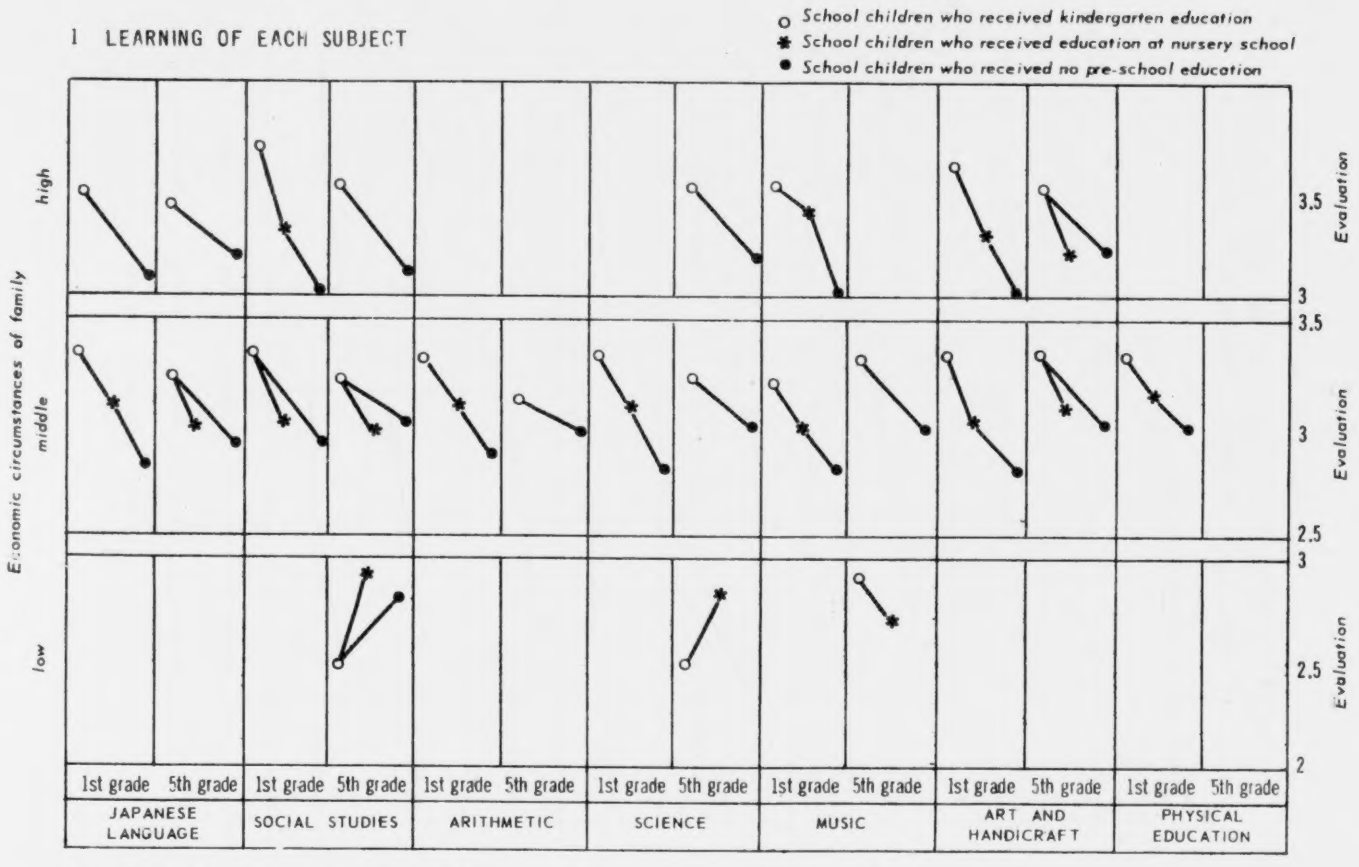
While all of this research has been carried out on present pre-school education, there are questions as to whether what is now available is indeed the most desirable form of pre-school education. One has to ask, also, whether or not the research indicates that the original objectives of the system are the objectives now sought. There is still a great deal of study to be carried out on the relationship between institutionalised group education and home education. Though pre-school education might well be started at four years of age, there is nothing conclusive against starting it at three.

2) Views Favouring Early Education

The role that education at an early age plays in the development of abilities has been emphasised by some authorities. Research into this field is, however, still in its infancy: there is much contention over what particular abilities can be developed, what methods will prove most suitable, how long such tuition should be given, its effects on personality development and so forth. Therefore, we consider it too soon to envisage early education as part of a system of institutionalised group education.

Figure II. B.2

RELATION BETWEEN EXPERIENCE OF PRE-SCHOOL EDUCATION AND SCHOLASTIC ATTAINMENTS IN ELEMENTARY SCHOOLS

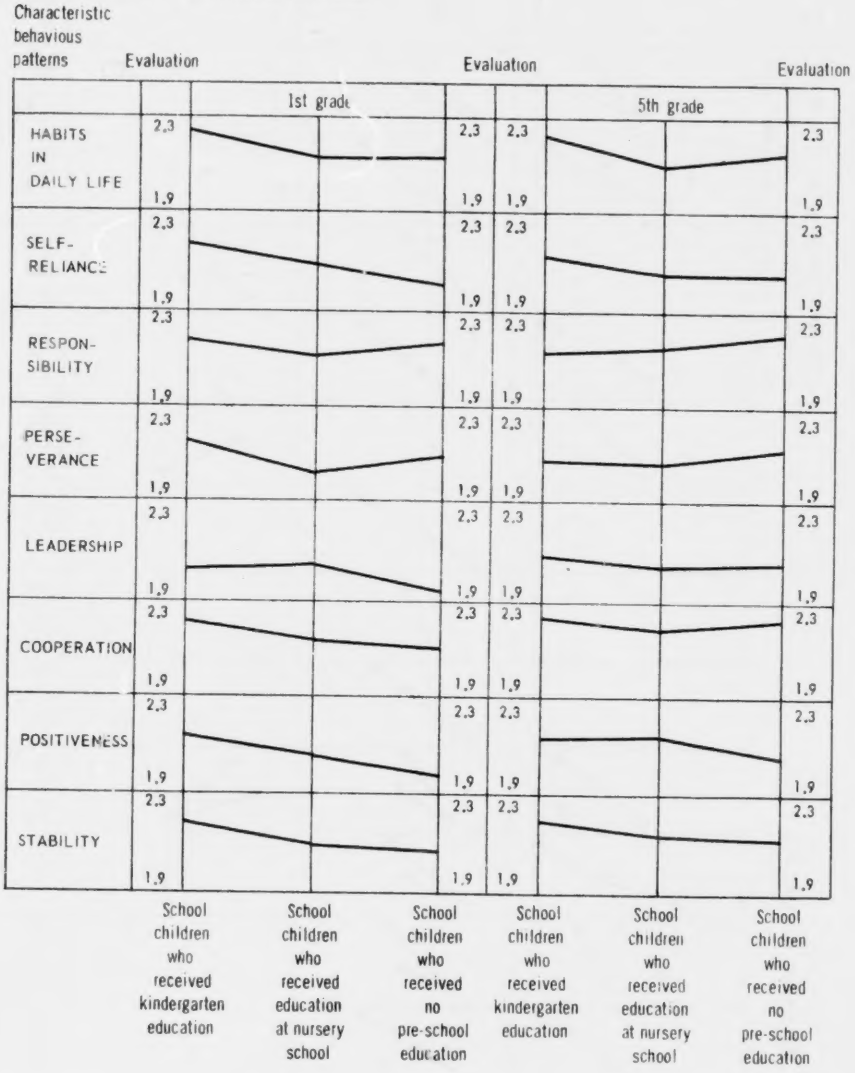


Note : Scholastic attainments are represented by a mean value

Figure II. B.2 *(continued)*

RELATION BETWEEN EXPERIENCE OF PRE-SCHOOL EDUCATION AND SCHOLASTIC ATTAINMENTS IN ELEMENTARY SCHOOLS

2. CHARACTERISTIC BEHAVIOUR PATTERNS



3) The Need to Protect Small Children

With the growth of cities and the development of mass communication media, children have begun to suffer. They are short of safe playing spaces, they face increasing hazards in the cities and both inside and outside their homes they are affected by novel stimuli. The extension of pre-school educational facilities is recommended in order to protect small children from physical and psychological dangers and in order, also, to provide them with healthy environments conducive to their growth.

3. The Relationship of Pre-School Education to Elementary Education

1) Similarity in Growth Between Five Year-Old Children and Six-Year Old Children

From observations of certain features in the growth of small children of, for example, their brain cells, their athletic ability, their level of perception, command of language, thought processes, emotional states, group activities, etc., it is indicated that five year-old children are similar, in their rates of growth, to 6-7 year-old children, who are in the first and second grades of elementary schools. There is, however, a considerable difference in terms of growth between the 6-7 year-olds and the 8-9 year-olds who are in the third and fourth grades of elementary schools. This was shown by surveys carried out in the schools themselves.

2) Continuity Between Pre-School Education and Elementary Education

There is little argument as to the need, in any school system, for a period of group education based on "play" for the promotion of small childrens' growth. This facilitates the adjustment from the home environment, where the children are cared for by their mothers, to that of a school education where specific subjects are studied. Yet, opinions vary as to at what specific age and in what type of establishment such transitional measures should be taken. The call for the compulsory enrolment of five year-old children into kindergartens, or for lowering the school enrolment age to five years, is related to this issue. It is clear, however, that there is no relationship between childrens' growth, the current form of kindergarten education, which strongly rejects "intellectual" studies, and the education given in first and second grades in elementary school, which lacks a child-care factor. Whatever structural reforms are contemplated for the future, their major task may well be to overcome this particular problem.

3) Consideration of Individual Differences in the Growth of Small Children

The mental and physical growth of childhood is so remarkable that differences in growth at different ages are more marked then than later on. Accordingly, even among children in the same grade there is a big difference in development between those born between January and March and those born between the April and December of the previous year (Figure II.B.3). In any expansion of the education of young children, great care should be taken over the system used and personal guidance corresponding to these individual differences should be ensured.

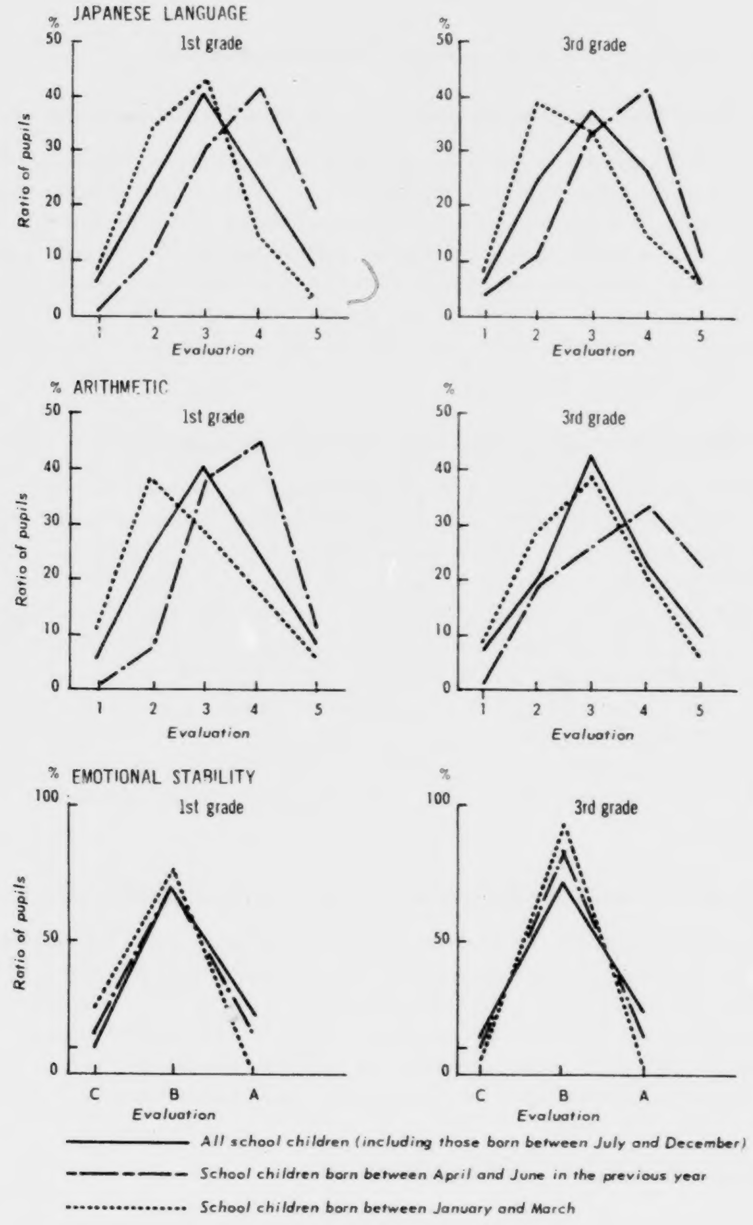
4. The Division of Elementary and Secondary Education

1) Junior and Senior Grades in Elementary School

While the elementary school is divided into six grades there is a wide gap in growth between the senior graders and junior graders and the fourth graders are in the intermediary

Figure II.B.3

DIFFERENCES IN SCHOLASTIC ATTAINMENT AND PERSONALITY BETWEEN THE APRIL-JUNE BORN AND THE JANUARY-MARCH BORN IN ELEMENTARY SCHOOLS (1969)



stage between the lower and senior graders. Considerable differences are said to exist between the methods of thinking of the junior and senior graders. Here too there is room for consideration of differences in the rate of growth in providing the children with appropriate instruction and guidance.

2) The Relationship between the Senior Grade of Elementary School and the Lower Secondary School

Senior graders, particularly sixth graders in elementary schools, are said to be as capable of abstract thinking as lower secondary school pupils and show physical growth similar to those pupils too, but it is not clear that their emotional and social growth is the same. Generally speaking, there are few studies available of the rates at which pupils in elementary and lower secondary schools grow.

With the contents of education becoming more complex, the introduction of departmentalisation is said to be necessary at the fifth grade. So, it is argued, if the senior grades of the elementary school are incorporated into the lower secondary school, improvement can be expected of lower secondary education, at present ineffective because of its brief, three-year duration. The counter-argument holds that the real problem is the division of secondary education into first and second stages. Elementary education has over a long period of time been stabilised, and any disparities in the growth of its junior and senior graders can be solved, within the system itself by paying attention to the individual students. It is not a problem so serious as to require the re-organisation of the entire school system.

5. The First and Second Stages of Secondary Education

1) Stages of Growth during Adolescence

Adolescence, when the interest or concern previously directed toward the external world is turned inward as well, is considered to be the most important stage of personality development. It is said that most of the functional characteristics of mental and physical growth come to the surface during the first half of this particular period and are further developed and substantiated during the second half.

As pointed out before, a careful and comprehensive study should be made of the advantages and disadvantages of a system in which secondary education is divided into lower secondary schools and upper secondary schools corresponding to the first and second periods of adolescence. Again, bearing in mind the development of the adolescent, one notes that the present stages of secondary education oblige pupils undergoing the throes of adolescence to adapt to a new school life and, subsequently, advance to schools of higher learning or else prepare to go out to work. As a result, students scarcely have time to develop their own personalities.

2) Other Problems caused by the Division of Secondary Education into Two Stages

The division of secondary education into two stages causes inconsistencies in curriculum. It can also be argued that educational measures adapted to the pupils' abilities and aptitudes cannot be taken because the observations made and guidance given in the lower secondary schools are not co-ordinated with the education of the upper secondary schools.

A survey was made of private secondary schools in which both the upper and lower parts of the school existed under the same managerial body. In these, pupils receive an education similar to that of a school in which lower and upper sections are completely integrated. The results show that graduates of this type of lower secondary school do better, in many respects, than do those of other public, lower secondary schools.

An opposing view holds that the classification of pupils into different courses can be more effectively made under the current system of dividing secondary education into two parts. The selection of students by means of an entrance examination is also said to act as a stimulus to studying, if judiciously applied.

6. The Co-ordination of Upper Secondary School Education and General Education in the University

Some have argued that the future expansion of university education should be accompanied by a further development of general education. The latter was introduced into the universities after the war to counteract the evils of excessive specialisation and to encourage students to develop a good cultural background. Others argue, in contrast, that the proper place for general education is in the upper secondary school and that university education should be reserved, exclusively, for specialised education.

Whilst further detailed studies are required before coming to any conclusion on this issue, the following problems have been isolated by previous surveys:

a) The teachers' attitude to general education

From the research conducted by the teachers of seven national universities (the former Imperial Universities) into the attitudes of teachers in charge of general education in those universities - it appears that teachers attach more importance to developing the students' logical, scientific and academic abilities than to providing the students with a good cultural background.

b) Ways of completing courses in general education

The survey conducted by the Ministry of Education in 1967 into ways of completing courses in general education indicated that most universities - 84 per cent of national universities, 76 per cent of public universities and 80 per cent of private universities, provide for the completion of such courses during the first term. In universities which do not have a general course department, or anything similar, more cases are found of students being advised to complete such courses during the first and second terms (Figure II.B.4).

These figures, however, should not be looked upon as necessary evidence of the universities favouring the idea of students completing all general course education during the first term. The inclusion in general education courses of languages and other subjects fundamental to students preparing for a technical education has made it hard for universities to provide for such courses in the first and second terms.

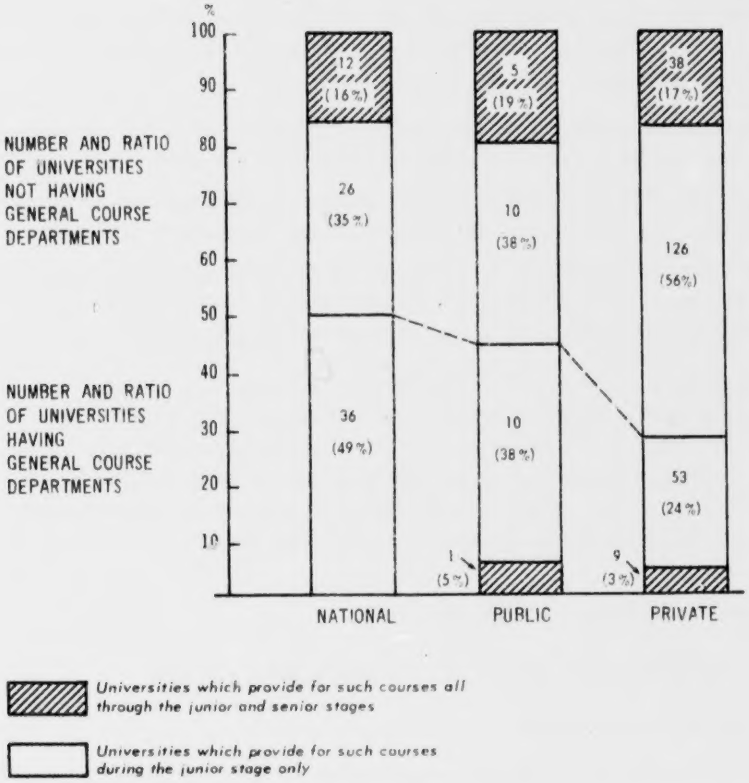
c) The contents of general education

It is claimed that the general education given in university courses often duplicates that given in upper secondary schools. The General Education Research Committee of the National University Association points out, as an example, that there is a considerable overlap between "ethics and social studies" in the upper secondary school and "philosophy, ethics and sociology" in the university.

It is, however, natural that there be something in common between such courses in terms of the subjects studied. The problem lies rather in how such subjects are handled. Points like these, arising from previous research, still, however, require clarification.

Figure II. B.4

WAYS OF COMPLETING COURSES IN GENERAL EDUCATION



Problems for Study:

1) In adapting school education one must allow for flexibility in the design of curricula and the admission of students. One must remember that different schools have different educational objectives: some aim to encourage the student to develop just so far as he is able; others expect all of the students to attain a definite academic level. One must reexamine which of these objectives most needs to be emphasised at which level of education and in which fields of specialisation.

2) In view of the recent environmental changes which have seriously affected the growth of small children, it is necessary to obtain a perspective on the ideal relationship between home education and institutionalised group instruction.

3) In studying the school systems, a clear evaluation of the problems inherent in the current educational system is needed as well as an exact statement of future needs and practicable reforms. It is especially important to consider how the following observations on human growth might be utilised:

a) Five year-old children share similarities in growth with six to seven year-old children, but no way has been found for dealing with such similarities in the school system.

b) Consideration should be given to the qualitative differences in growth which are known to exist between senior and junior graders in the elementary school.

c) With the division of secondary education into first and second stages, adolescents are forced to worry over their advancement to the schools in the higher grade. This can scarcely be thought of as beneficial to an adolescent's development or maturity.

4) While language studies and the subjects fundamental for preparation for technical education, as well as those relative to general culture are included in the contents of general education in universities, it has been pointed out that problems then emerge in relation to upper secondary school education. In considering any rationalisation of the school system and curriculum for the future, it will be necessary to conduct a comprehensive study of when, where and how these subjects should be most beneficially taught.

II. Education Adapted to Abilities and Aptitudes

1. The Notion of Differences in Individual Abilities and Aptitudes

1) The meaning of intelligence

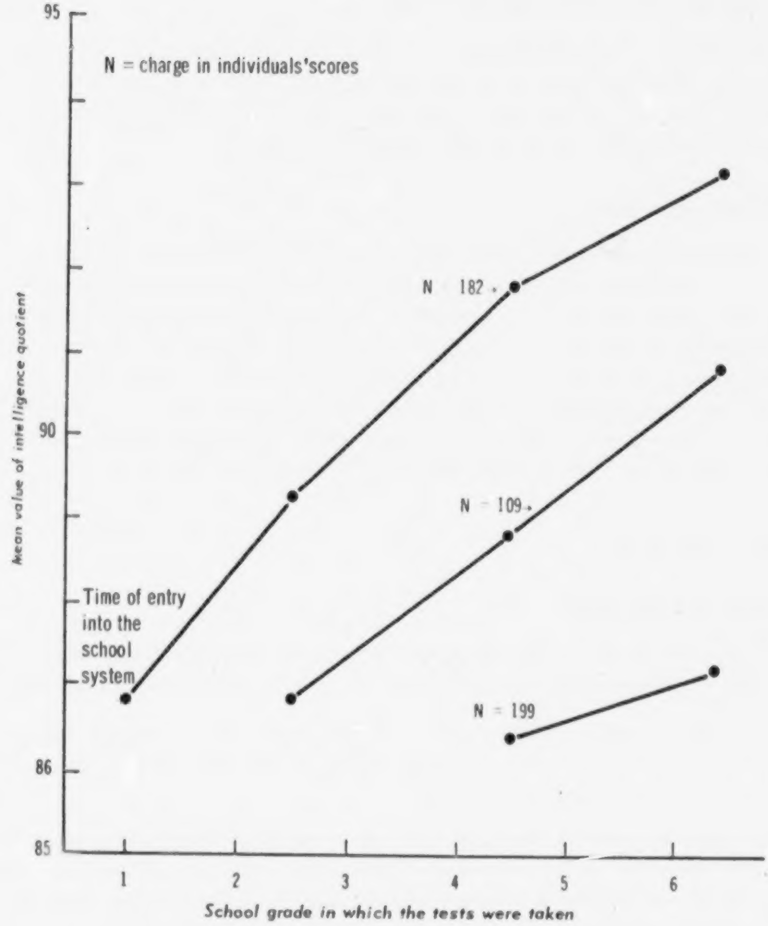
While what is known as intelligence is generally thought to be indicative of ability and aptitude, the following considerations are worth noting:

a) According to a number of studies of the relationship between intelligence and scholastic ability, intelligence tests may be claimed to evaluate a basic capacity to pursue intellectual studies. However, it is also claimed that this type of test does not necessarily appraise all the intellectual abilities of the human being.

b) Generally, on the macro-level, a considerable degree of constancy is found in the intelligence quotient of each individual, based on the ratio of his mental age to his calendar age, but it is admitted that where educational circumstances differ, the results of intelligence tests differ also (Figure II.B.5). Therefore, one cannot conclude that the intelligence quotient presents an unchangeable and accurate estimate of individual ability.

Figure II.B.5

FLUCTUATION OF I.Q. OF NEGRO SCHOOL CHILDREN
CAUSED BY MIGRATION
(USA, 1951)



Notes: 1. Lee E.S., "Negro Intelligence and Selective Migration", *American Sociological Review 1951*, 16, 227-233.

2. Negro school children who migrated from the south of the USA to Philadelphia improved their performance in the Philadelphia Tests of Mental and Verbal Ability according to the length of time they had been in Philadelphia and in Philadelphia schools.

2) The diversity of ability and individual differences

Since intelligence tests usually employ only one measure of intelligence (the intelligence quotient, for instance) people are apt to think that all individuals can be easily ranked along a single scale. They forget that intelligence has many facets. The assessment of differences between individuals necessitates consideration of all such possible aspects of intelligence.

3) Ways of conceptualising "aptitude"

The idea of "aptitude" presupposes the existence in the individual of certain innate potentialities, which predispose him to a certain type of work or to certain circumstances. Recently people have tried to detect such predispositions, not only of an intellectual or physical kind, but also of a personal or psychological nature.

4) Education and "ability"

Though it is generally accepted that hereditary and environmental factors co-exist as causes of individual differences in ability, the relative importance of each factor has not been ascertained. Certainly the intelligence test measures more than inherited ability and, even where inheritance is concerned, one cannot assume that all people are born with the same potentialities. One must also bear in mind that the differences in ability, which the studies indicate, are by no means permanent. Simply because such differences will change, one must ensure a flexible classification of teacher methods and courses; education, whilst meeting present needs, will then adapt itself successfully to the future as well.

2. The Measurement of Ability

1) Factors worth considering

Any successful system of education must try to assess the individual abilities of its pupils. Several types of tests should be utilised, with the following objectives in mind:

a) One must try to define, in terms of the basic goals of education, the specific fields in which ability and aptitude should be assessed. Using a recognised test impreoisely may result in pupils receiving unsuitable guidance.

b) The way in which a test is prepared and employed will depend very much on its purpose. Some tests, for example, will be used to clarify the sort of instruction appropriate for individuals of different ability; others will help to rank pupils in terms of their approximation to a particular standard.

c) At present the "standardised objective tests" are used in the majority of cases. One has to interpret their results fairly liberally, however, as their predictions of pupils' future development are questionable. Improvements might be effected if people who use such tests were suitably qualified and if students were discouraged from studying for such tests in order to obtain high scores.

2) Guidance through observation

With the importance attached in recent years to using observation as a technique for understanding pupils' abilities, a system of guidance through observation has been implemented. We shall have to await future studies, however, in order to assess the results of this.

3. Course Classification and Educational Techniques Suitable for Pupils of Different Levels of Ability

1) The timing and method of classifying courses

Differences in ability between individual pupils increase as the pupils move on to senior grades and to more specialised education. It is argued that the patterns of intellectual differences between pupils are similar in the upper secondary school to what were originally manifest in the lower secondary school but that the differences apparent in the elementary school do not necessarily persist into secondary education. This is taken by some to indicate that the real differences between pupils' abilities appear during secondary education and that it is therefore reasonable to determine each pupil's future course in life at this stage. There are some doubts about this, however, and one should note the following:

a) It is generally held that the third grade in the lower secondary school is the stage at which pupils should begin to think about their future careers; it is the stage at which some indications of their future choice of occupation may be apparent because by then they will have matured in many ways. But it has also been found that specific types of jobs should not be chosen at this rather premature stage.

It should be noted, nevertheless, that certain specific skills cannot be acquired unless the education and training necessary for them is provided at an early stage.

b) In classifying pupils into different courses, it is essential to provide them with suitable guidance for their future courses. One should evaluate their abilities and interests as these will indicate which future courses will prove appropriate. In practical terms, at the moment, the selection of courses in upper secondary schools is affected by a pupil's scholastic achievements. This is mainly due to the social preference for general courses and to the inherent disadvantages in the selection of vocational courses, which hinder rather than help students waiting to go on to higher education.

2) Instruction by ability group

In providing pupils with an education suited to their abilities, it is customary to organise them into different groups, given the limited possibilities for personal guidance from teachers, in order to ensure the most effective instruction possible. In lower secondary schools, classes are organised in some subjects, like mathematics and foreign languages, on a basis of the pupils' abilities. In upper secondary schools insufficient ability groups have been formed, however, although in most cases classified courses have been set up. For this there are two possible explanations: firstly, students of similar ability only may have been admitted by the entrance examination and, secondly, the persistence of ideas from the days of the old secondary schools may have dampened interest in improving teaching methods.

At any rate, this problem requires further study, and one should note the following:

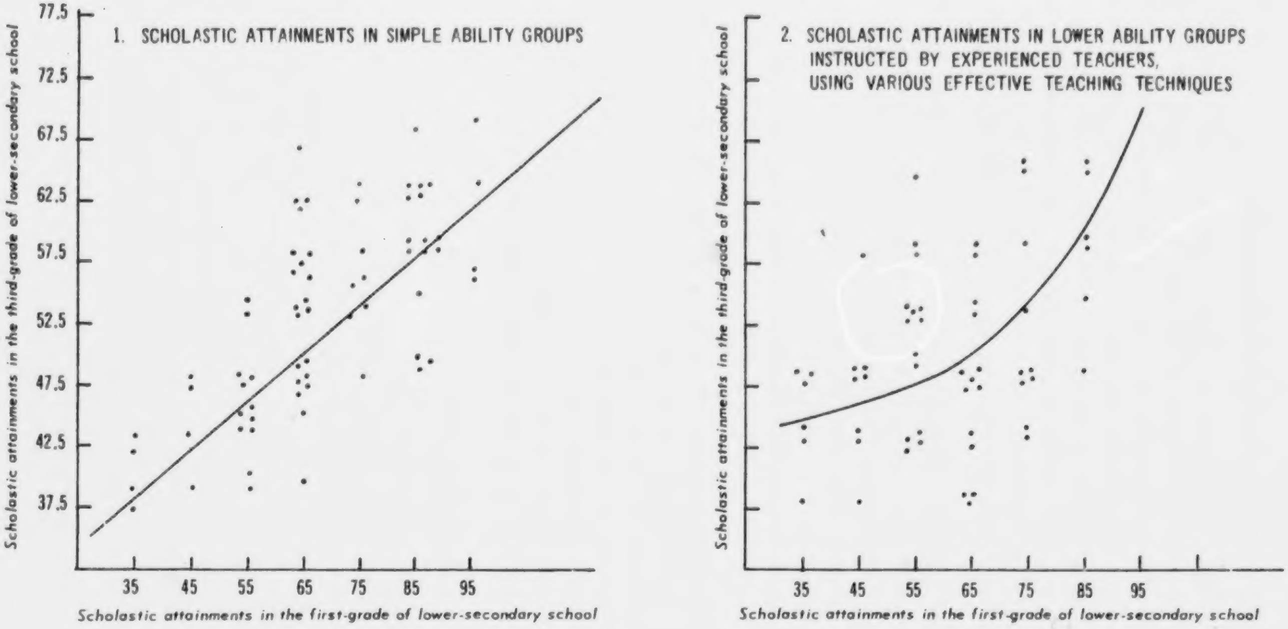
a) In many cases, teachers regard the ability group as simply a method of classifying pupils of like ability. They then teach these pupils in the same way all the time, without developing methods of teaching and an environment for learning suitable for each different group (Figure II.B.6).

b) There are two methods by which classes may be organised. One may put together only students of similar ability, or one may mix students of many different levels of ability. It is argued that classes of the first sort are easier to teach and are better for the pupils

Figure II.B.6

SCHOLASTIC ATTAINMENTS IN MATHEMATICS OF PUPILS IN ABILITY GROUPS

(Lower secondary schools in Akita prefecture)



too, but the results of intelligence tests, in Japanese and mathematics, indicated that, in schools where either one or the other sort of class was in operation, bright pupils from the mixed ability classes did better than the bright pupils from the homogeneous group. It is felt, too, that classifying children into ability groups comes close to classifying them according to their parents socio-economic status. This could only have an adverse effect on pupils' adaptation to and outlook on society.

c) It is also felt that in a class where the abilities of students are mixed, where pupils come from all social classes and have very different personalities, the pupils are provided with a microcosm of the adult world. There they have the valuable experience of learning to understand and co-operate with students very different from themselves. A number of surveys show that, on the whole, both the superior and the slower pupils make better progress when they are taught in a mixed class and are only divided into ability groups for a few more intellectual subjects.

It may be said, in conclusion, that grouping pupils into ability groups should be made contingent upon the type of subject taught. The capacity of pupils to learn depends partly on the teaching methods employed. Pupils will lose their enthusiasm for learning, and teaching will be rendered ineffective if inflexible ability groups are widely used, or if teaching methods suited to individual groups of pupils are not worked out.

3) The class as a unit of education and guidance

The class is important both as a place in which pupils, through their experiences in the group, develop their personalities and as a place of learning. Gradual improvements have been made in class organisation in the elementary and lower secondary schools in this country (Figure II.B.7). One needs to know more, however, about the following: the size of class in which a teacher can most effectively operate; the relationship between class size and effective learning; the advantages or disadvantages of having a class in the care of just one teacher; the relationship of ability groups to the social structure of the class, and so forth.

One must also consider that class organisation could change with the spread of new teaching aids and, consequently, of more individualised education.

4) Special education for gifted pupils

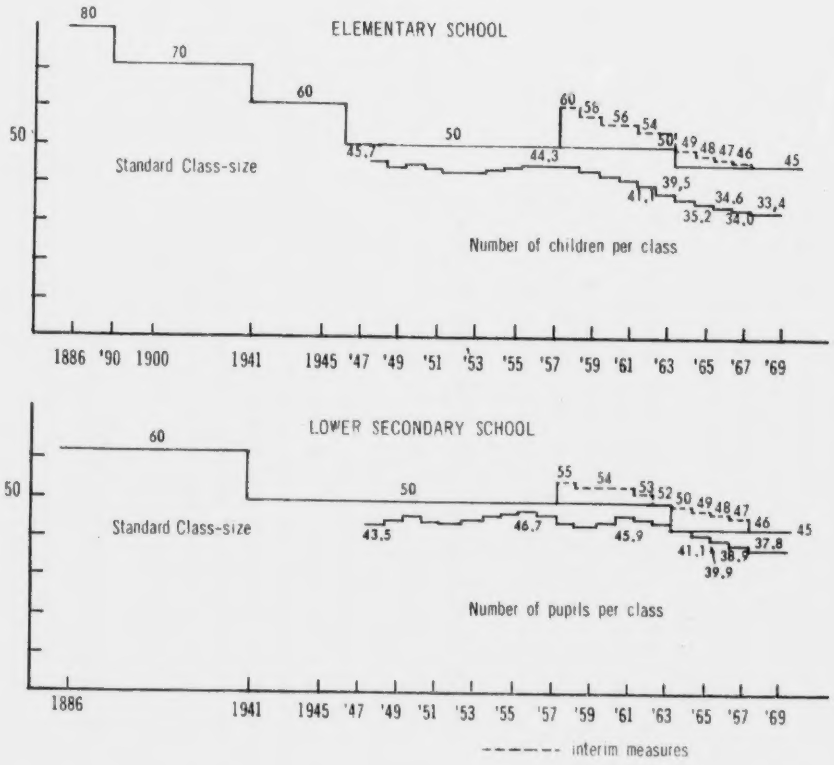
Whilst the following ideas are submitted for the special education, within the school system, of gifted children, no quick conclusions should be drawn before further studies have been carried out:

a) The special education of brilliant pupils will prove adequate only when pupils' individual abilities are given consideration in all branches of education. It will remain inadequate, also, until the contents of education have been broadened and the importance of encouraging creativity has been recognised.

b) The limitations of personal guidance and the diversification of education often results in brilliant students simply stagnating. Special techniques should be devised to develop the potentialities of such students outside the general curriculum and normal school system.

Figure II B.7

TRENDS IN STANDARD CLASS-SIZE AND NUMBER OF CHILDREN PER CLASS
IN THE PUBLIC COMPULSORY SCHOOL



4. Education for Creativity

Current discussions on creativity usually centre either on the genius of people with special talents, or on the creative ability of the average man. It is the average man to whom reference is generally made in discussions on the development of creativity in school education, but confusions of meaning do arise amongst the persons concerned, for this is a comparatively new debate. It is important for social progress to foster creativity. In school education this development of creativity now assumes as much importance as does the development of personality. Factors brought out in previous discussions are indicated below:

a) It is pointed out that children's progress at school depends as much on their creative ability as on their so-called intelligence. The school system has so far, however, done little to encourage creativity, emphasising instead learning by rote, technical training and passing examinations.

b) An educational system that encourages creativity must build the opportunity to think creatively into its curriculum. It must encourage pupils to search freely for different solutions to the problems with which they are presented. Since individual creativity depends more on a balanced personality than on mere intelligence, however, pupils must be encouraged to focus on specific subjects and lines of thought in order to produce something of real value.

c) In encouraging creativity in school the class plays an important role, although the teacher's attitude is crucial too. In general, it is felt that teachers over-value the highly intelligent students and under-evaluate those who are highly creative.

d) It is claimed that "creativity tests" show a high correlation between creativity, intelligence and scholastic ability, though these three are certainly not synonymous (Figure II.B.8). Perhaps positive thinking depends more on intelligence, whilst creativity results in freer and less directed patterns of thought. Whatever the relationship, we need to know more about the reliability and significance of these "creativity tests".

5. The Significance, Contents and Methods of Special Education

1) The significance of special education

The education of mentally and physically handicapped children tends to be treated in isolation from that of normal children. Education is designed to help each individual develop as far as possible and special education is therefore organised so as to provide a suitable training for each handicapped child. To provide handicapped children with a suitable education, however, some of the content of normal education has to be changed.

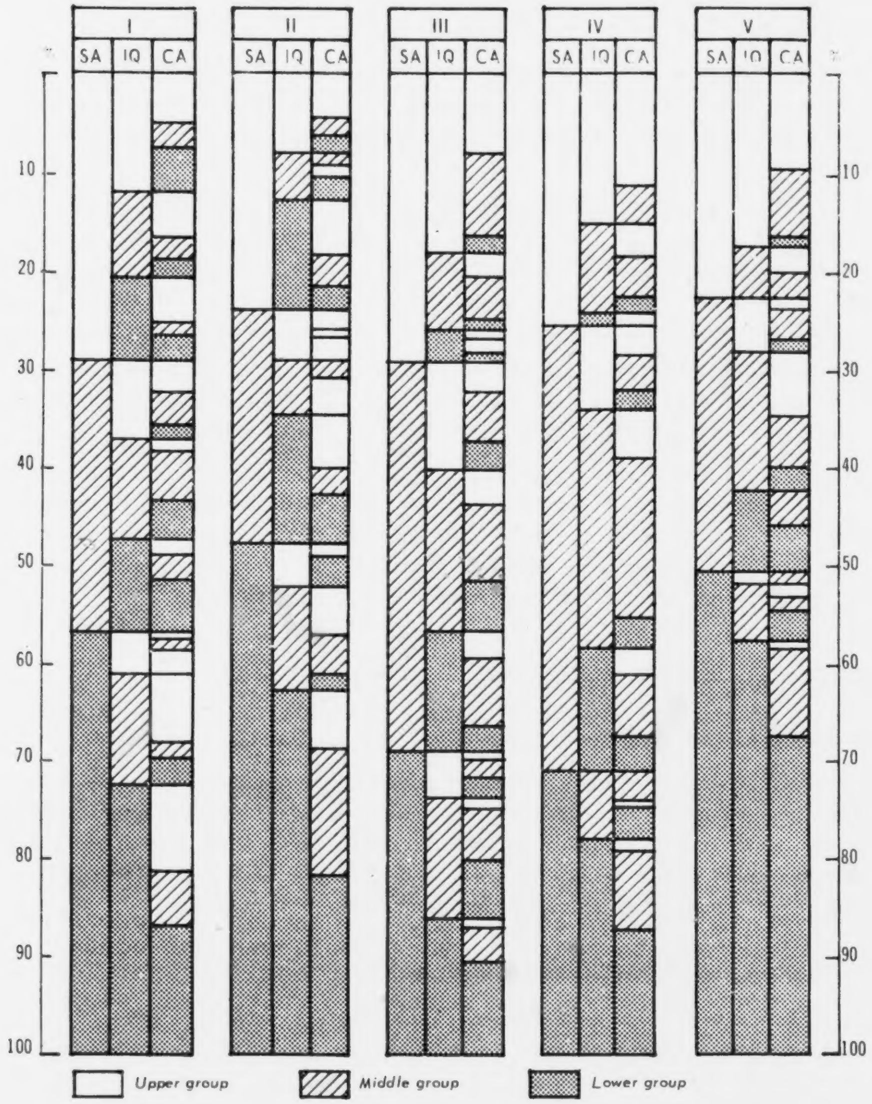
2) The content and method of special education

As certain disorders, such as blindness, deafness and infantile paralysis, have declined in the population, other disorders have presented education with new problems. These frequently complex disorders include impairments of sight and hearing, emotional disorders, autism, infantile asthma, speech problems and the varying effects of cerebral paralysis. The following problems have emerged from the education of pupils with such disorders:

a) At the moment it is difficult to distinguish with accuracy between the various disorders and select for the pupils the appropriate type of education. To encourage research into these problems and to speed up the development of educational aids, doctors, psychologists

Figure II B.8

RELATIONSHIP BETWEEN SCHOLASTIC ACHIEVEMENT, INTELLIGENCE AND CREATIVE ABILITY IN SECONDARY SCHOOLS (1968)



Notes:
I II Lower secondary school (1) attached to National university (Imperial university)
III IV Public lower secondary school (3) in the city
V Public lower secondary school (5) in the suburbs
SA Scholastic Achievement
IQ Intelligence quotient
CA Creative ability

and educationalists should co-operate more closely. The education which handicapped children are currently receiving is quite inadequate.

b) To help mentally and physically handicapped children fit into society and study more effectively, it is best to have them study, though under proper supervision, with ordinary children. Before doing this, however, one must consider the fall in the number of children in ordinary classes, and the attitudes of the ordinary children, their parents and the local community. One must also arrange for the suitable deployment of specialised teachers.

c) Even when suitable education has been arranged for handicapped children, one needs to preserve a measure of flexibility so that changes may be made whenever educational assessments deem them necessary.

d) The earliest possible detection of mental and physical disorders is advisable, but in many cases this remains difficult. Techniques for detecting handicaps at an earlier age have been insufficiently developed and facilities for educating the handicapped at an earlier age are not as yet available, with the exception, that is, of the kindergartens for the deaf (Figure II.B.9). After elementary education is over, many handicapped children still experience severe educational difficulties. In some cases, according to the type or the degree of handicap, the period at school is terminated at too early an age.

e) In the upper secondary department of special schools, emphasis is placed on training which will help the handicapped lead independent lives in the future. Even here, however, one should try to match vocational training to individual ability. One should not be afraid to move outside the traditional types of training into new fields. In particular one should try to broaden the general course and increase the possibilities of higher education for the handicapped.

Problems for Study:

1) In the past, though individual differences in intelligence were recognised, differences in "ability" were often overlooked. Now one must also consider what sort of education is most suitable for pupils of different "ability", remembering that one's goal is the creation of worthwhile individuals. In this instance, the educational differences between boys and girls should be further examined.

2) One must discover how to assess pupils' abilities on a scientific basis and how to classify and guide students into suitable courses. If this is done successfully, pupils will begin to plan their futures during secondary education with an awareness of their own abilities and interests and of the fields where these can be most effectively applied.

3) In order to give pupils the education most suited to them, teachers should know both how to assess ability and how to select the most appropriate education for their charges. One should study how a teacher might improve his abilities of assessment, learn how to administer tests and how to interpret and utilise their results.

4) In order to make the personal guidance of pupils more realistic, further analysis should be made of the process of learning and of the possibilities of utilising the various methods of educational technology.

5) A comprehensive survey is needed of the present impediments to creativity within the school system. On the basis of its results, decisions could be taken on methods for promoting the development of creative capacity within school education.

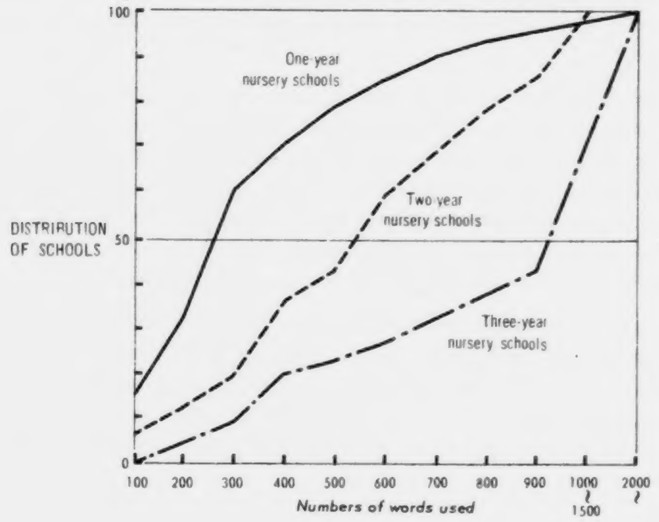
6) To supplement and improve special education, an examination of the following is needed (taking into consideration both the educational and medical aspects of treatment):

Figure II B.9

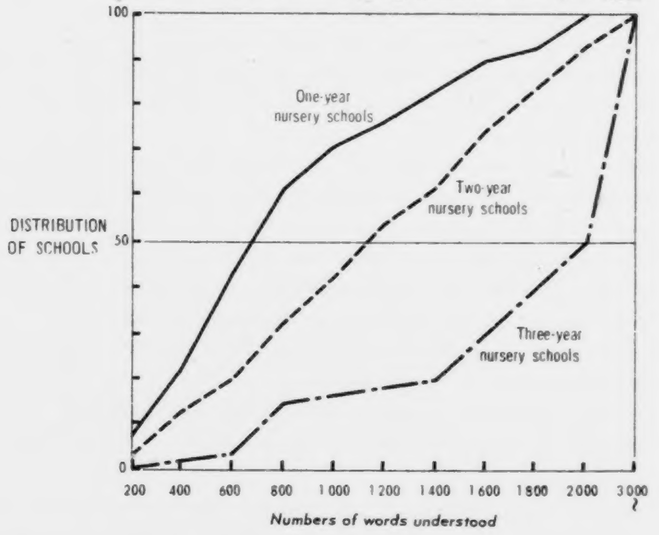
THE TARGET NUMBERS OF WORDS USED IN THE LANGUAGE TEACHING PROGRAMME IN THE KINDERGARTEN DEPARTMENT OF THE SCHOOL FOR THE DEAF

(of 5-year old children) (1968)

The distribution of schools by target numbers of words used



The distribution of schools by target numbers of words understood



Notes : 1. The words understood by an average child on admission to elementary school are about 500.

2. These figures were obtained by the survey conducted by the Research Division of the Ministry of Education.

a) Measures for diagnosing, differentiating and treating handicaps, improving the children's education and extending their independence.

b) Ways of educating handicapped children within the ordinary system as far as their disorders will allow.

c) Methods for promoting the scientific investigation of the efficiency of certain teaching methods, materials and aids in special education.

III. The Selection of Students

1. The Problems Involved in Selecting Students

1) Competitive selection and selection on a basis of merit

There are two ways of selecting students. On the one hand the successful candidates may be selected through a process of competition, with a regular number of students whatever their quality, always being admitted to an institution. On the other hand, certain standards may be defined as pre-requisites for admission, and then those students with suitable qualifications only will compete with each other for places. In this country, in school education, the latter form of selection was once enforced, but now the former process operates because there are no objective standards on the basis of which students may be admitted.

In other countries, like France, Britain, West Germany, the United States of America, and so forth, recruitment into higher education is made on a basis of merit, but in the USSR the competitive system operates. Which selection process one chooses rather depends on the view taken of education, and the role of education in society. Competitive selection corresponds to the belief that education should offer a student only as much as he is able to take, whereas selection on a basis of merit fits in well with that view of education which envisages students aiming for prescribed levels of excellence.

2) Causes of the growth of competition for entrance into schools in this country

In the 1967 school year, 98 per cent of all applicants to secondary schools were actually admitted. The real number of students admitted into universities equalled 70-80 per cent of the new upper secondary school graduates. There was, therefore, no obvious reason for competition for university or college places (Figure II.B.10).

In reality, however, applicants tried so hard to get into certain well-known schools that they distorted the pattern of upper secondary education and produced a large number of "Ronins" - unsuccessful examinees intending to try again. The following causes of such excessive interest in particular universities may be listed:

a) Universities choose their students, not on a basis of their previous scholastic performances, but on their performance in the annual achievement test that the universities set themselves. Many students are therefore tempted to take the entrance examinations of the well-known universities over and over again.

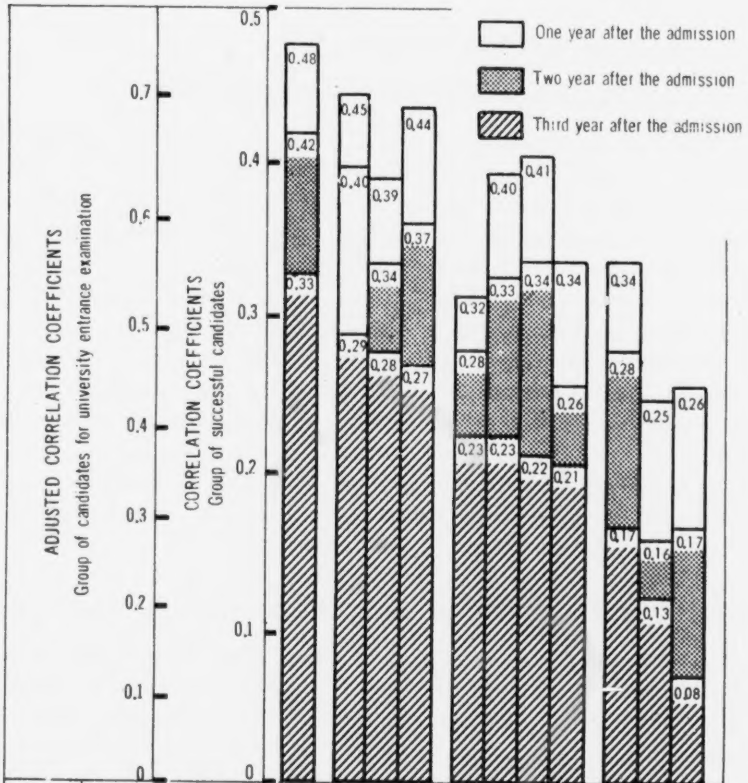
b) The guidance given to pupils in the junior schools is ineffective, because entry into the well-known universities is believed to offer the best chance of a secure future. Universities are rated not by the education they offer but by the difficulty of getting into them and students believe that, once admitted, they are sure of graduation.

c) Universities have not tried to offer the good courses characteristic of them and, as yet, good universities have not learnt how to complement each other most effectively.

Figure II. B.10

CORRELATIONS BETWEEN STUDENTS' ACHIEVEMENTS IN UNIVERSITIES AND THEIR RECORDS IN SECONDARY SCHOOLS AND EXTERNAL TESTS

(1964)



RECORDS COMPARED	Records of entrance examination	○		○	○		○		○			○
	Records of upper secondary school	○	○		○		○	○		○		
	Scholastic achievement test of ETRI	○	○	○	○	○		○	○		○	
	Scholastic aptitude test of ETRI	○	○	○		○						

Notes : 1 This figure is based on the results of a three-year research program carried on by the Educational Test Research Institute (ETRI) in cooperation with eighteen faculties in the universities (The students selected for this research were new entrants in 1964 and their numbers are about 1,260)

2 This figure shows the mean value of the distribution of correlation coefficients in those faculties (In comparing more than two records before admission to university, multiple correlations are used)

3 The correlation coefficients have a value estimated by adjustment of the correlation coefficients of a group of successful candidates to a group of candidates for university entrance examination, taking account of the rate of entrance competition

2. Improving the Selection of Students

1) Changes previously made in selection procedures

Selection procedures have been regularly revised but improvements made have been somewhat inconsistent. In past discussions a number of factors have been emphasised, such as "securing equality of opportunity", "the proper assessment of ability", and "the elimination of repercussions on junior schools".

a) Recommendations for the abolition of the achievement test and the placing of greater emphasis on the school report were made in 1927, 1940, 1948 and 1967 for secondary education. But in 1929, 1943 and 1956 the achievement test was upheld as a bastion of objectivity and impartiality.

b) In 1948, in secondary education, the objective test was introduced to secure objectivity and impartiality in marking but then in 1954 it was argued that the objective test did not encourage independent thought or creativity.

c) In higher education, in 1950, the aptitude test was made compulsory, so that students' future scholastic abilities could be forecast. Then in 1955 this was abolished because students started studying just for the test.

d) In secondary education in 1927 and 1963, and in higher education in 1927 and 1950, oral tests and interviews were instituted to supplement the achievement test which was unable to assess "personality", and to reduce the stress placed on the secondary school by preparation for entrance examinations. These were then abolished - in 1948 for secondary education and in 1947 for higher education - because people said they were not impartial.

e) In 1942 in secondary education, and in 1902 and 1917 in higher education, a school district system was enforced along with an integrated selection system which was supposed to reduce competition. This was also abolished in 1908 for secondary education and in 1919 for higher education, because students wanted to choose their schools themselves.

2) The appropriateness of the data used in selecting students

From studies conducted by the National Institute for Educational Research, the Educational Test Research Institute and other institutions, the following results have been obtained on the appropriateness of data used in the selection of students:

a) A student's scholastic performance on entering university is most reliably predicted by looking at his school records during upper secondary school days. These provide a more reliable source of information than does the student's performance in a university entrance examination or his standing in the achievement tests of the Educational Test Research Institute.

b) No one test will provide accurate predictions on a student's potential university performance. More accurate results will be obtained if various data are applied as for example, outlined in (a).

c) Students who gain admission to university at the first attempt generally have better upper secondary school records and better university records too than do "Ronins", though the "Ronins" may eventually do better than the others in the entrance examination. This emphasises the use that those selecting students for university should make of upper secondary school records.

d) Upper secondary school records and the results of the national tests indicate quite clearly those students least likely to succeed in the entrance examination, even after a "Ronin" period.

3) Obstacles to the Improvement of Selection Procedures

Schools of higher and lower grades have always disagreed on how achievement tests should be set, how school reports should be handled and so forth, when dealing with student selection. The two sides have rarely tried to co-operate. The negative attitude of the university authorities towards improving student selection is also a stumbling block. These authorities seem unwilling to supplement the system or to initiate research into possible improvements.

Problems for Study:

It is more than necessary to pursue the study of selection procedures farther. These procedures seriously affect the state of education and the personalities of our young people, so one must endeavour to keep their undesirable effects to a minimum. As part of this effort one should also try to reduce the numbers of applicants to particular universities.

Chapter III

THE DISTRIBUTION OF EXPENDITURE ON EDUCATION

(The Report of Sub-Committee XXIII)

A. THE DEVELOPMENT OF THE NATIONAL ECONOMY AND THE GROWTH OF EXPENDITURE AT EACH SCHOOL LEVEL

I. The Relative Importance of Educational Expenditure in the Economy and its Increase at each School Level

In analysing the cost of education, this Committee has adopted the following technical definitions:

Overall Expenditure on Education: this includes all expenditures on education by both public and private authorities, together with students' own expenditure on items not otherwise covered.

Total Expenditure on Education: this is analysed in three different ways:

a) By type of education: this includes expenditure on school and other types of education; expenditures on administration and other expenses involved in training. (This last item is omitted, however, because of a lack of material.)

b) By disbursement: here a distinction is drawn between public expenditure (national, prefectural and municipal) and private expenditure (though excluding subsidies made by the public to the private sector).

c) By source: here a difference is drawn between the proportion of educational costs met by the public sector, the private sector and the students themselves.

School Running Costs: these are categorised into:

a) Recurrent expenditure items (teachers' and administrative salaries and basic maintenance costs).

b) Capital expenditure items.

c) Debt service expenditure and transfer items.

Notes

1. "Expenditure on school education" includes both income derived from university hospitals, farms, experimental plantations, etc., and any related expenditures on such bodies. These items are classified separately.

2. "Expenditures on administration" includes administrative expenses borne by the public sector, and the administrative costs of private establishments. Scholarships and contributions

to research programmes, museums and other cultural activities are classified separately.

3. The educational costs met by the private sector exclude the cost of loan repayments and transfer items.

4. Items such as miscellaneous contributions from other than student sources, business earnings, income from property and transfer and carry-over items are defrayed against the proportion of educational costs met by the private sector. The final balance is obtained after adjustment for loan repayments.

In discussing educational expenditure by school level throughout the period before and after the war, the committee has adopted the following classification of school systems.

SCHOOL LEVEL	PRE-WAR (OLD) SYSTEM	POST-WAR (NEW) SYSTEM
Pre-primary	kindergartens	kindergartens
Primary	elementary schools higher elementary school supplementary courses to the above deaf and dumb schools	elementary schools schools for the handicapped
Semi-secondary (pre-war)	technical continuation schools (youth schools)	
Lower secondary (post-war)	apprentice schools young men's training institutes	lower secondary schools
Secondary (pre-war)	middle schools girls' high schools girls' vocational high schools	
Upper secondary	vocational schools (A and B) practical arts schools	upper secondary schools
Teachers' training	normal schools (till 1942) institutes of teacher training for vocational supplementary schools (youth schools)	
Higher	higher schools colleges technical colleges preparatory courses for universities collegiate schools of universities universities higher normal schools normal schools (after 1943) training institutes of teachers for youth schools provisional training schools for teachers training institutes for vocational school teachers	universities junior colleges advanced technical colleges graduate schools national training institutes for technical school teachers national training institutes for "school nurses"

1. The relative importance of educational expenditure in the economy

Since the early years of the Meiji Era, education's share of the expanding national income has risen from 1 per cent to 5 per cent. Public expenditure on education as a percentage of total public expenditure has risen steadily, except during the war years, from a figure of 10 per cent in the Meiji period to 20 per cent today. The share of the public sector in total educational expenditure has, however, fallen from a near 100 per cent in the early Meiji Era to an approximate 80 per cent.

The public sector bore all educational expenses during the Meiji Era and, through its efforts alone, the ratio of total educational expenditure to total public expenditure increased. This helped spread education during a period of rapid economic growth. In the long run, however, the private sector took over an increasing proportion of total educational expenditure, as national income increased more rapidly than did total public expenditure. The following table illustrates these relationships:

	1905	1965
National income	¥2.17 billion	¥25,000 billion
Total educational expenditure in percentage of National income	2.03%	7.15%
Educational expenditure paid from public finances in percentage of total public expenditure	7.8%	22.2%
Total public expenditure in percentage of National income	25.3%	24.8%

2. An estimate of overall educational expenditure

The students' share of educational costs is also, as previously mentioned, included in "overall educational expenditure". This share can only be estimated, however, from 1955. According to these estimates, the students' share in overall educational expenditure has declined steadily over the last ten years and educational establishments now bear a larger proportion of this expenditure.

3. The relationship between per capita income and the percentage of national income spent on education

Figure III.A.2 illustrates, for different periods of growth, the relationship between "per capita income" and "the percentage of national income spent on education" in Japan. It indicates that:

a) The ratio of educational expenditure to national income rose rapidly between 1890 and 1910.

b) This ratio grew even more rapidly between 1920 and 1930.

c) 1950-1954 witnessed a third stage of growth but then the ratio remained more or less static until 1961, when it began to rise again.

One can sum up this development by saying that educational expenditure made a proportionate increase between the early Meiji years and 1954. As the income level rose, expenditure on education became a priority. Recently, however, compared with the rapid rate of economic growth, the increase in the rate of educational expenditure has declined.

4. Educational expenditure on different types of education

Throughout the period in question, expenditure on school education has accounted for about 90 per cent of total educational expenditure. Although public expenditure on "social" education increased after the war, it accounted for only 2 per cent of total educational expenditure and was exceeded by expenditure on "miscellaneous schools'" education. Even if the expenditures on educational administration, scholarships and research programmes are

Figure III. A.1

THE RELATIONSHIP BETWEEN NATIONAL INCOME, TOTAL EDUCATIONAL EXPENDITURE, TOTAL PUBLIC EXPENDITURE AND PUBLIC EDUCATIONAL EXPENDITURE

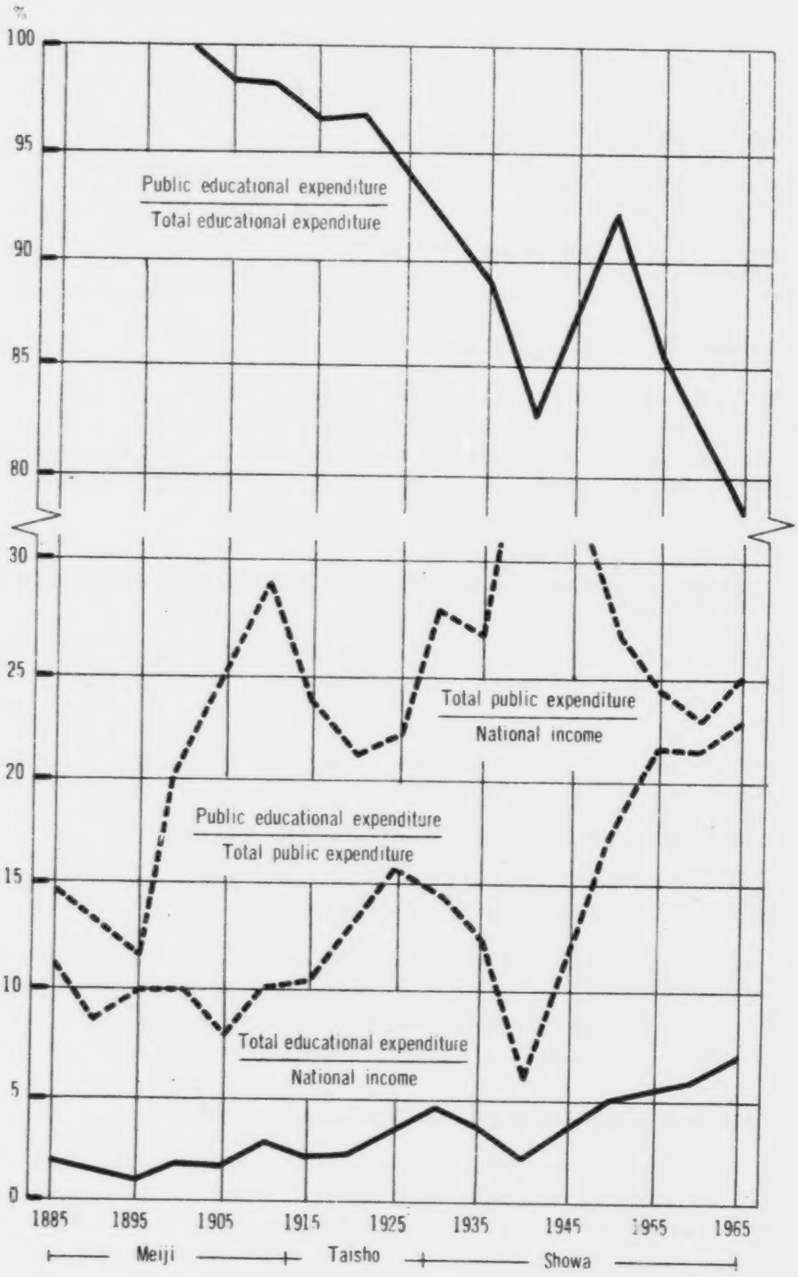
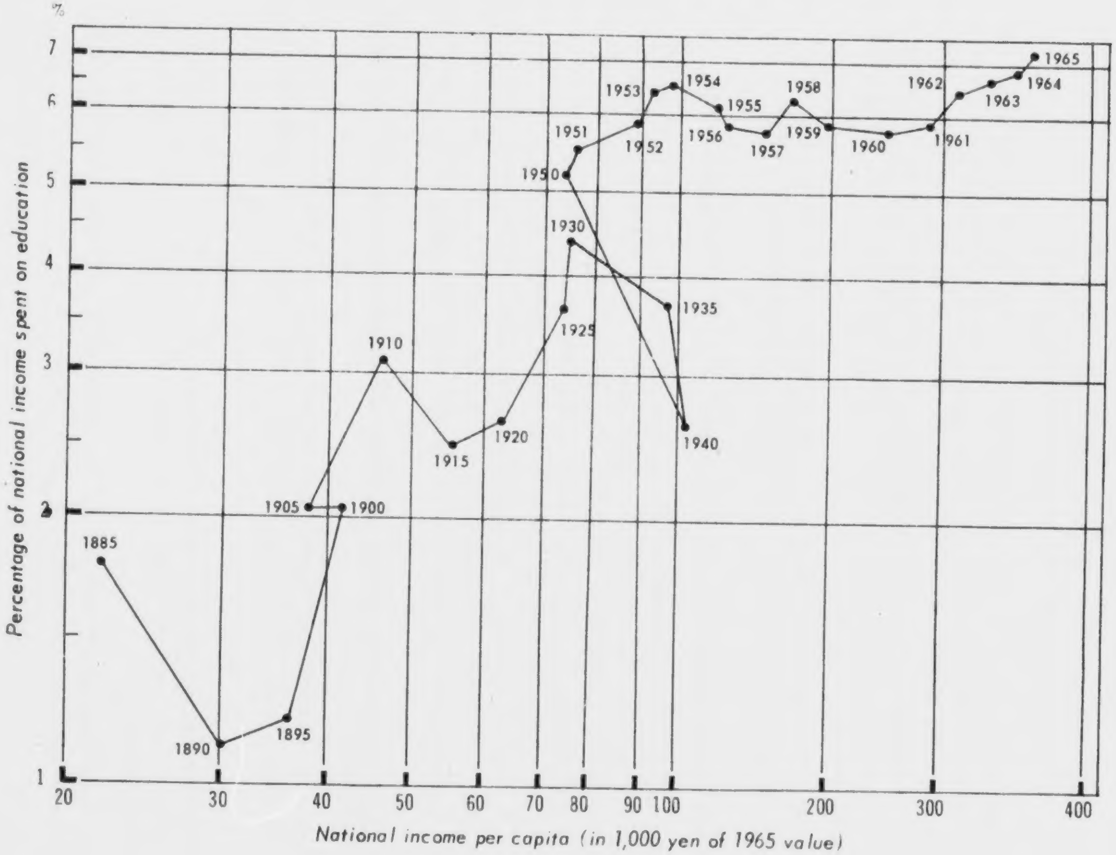


Figure III.A.2

THE RELATIONSHIP BETWEEN NATIONAL INCOME PER CAPITA AND THE PERCENTAGE OF NATIONAL INCOME SPENT ON EDUCATION



added together, the total comes only to approximately 5 per cent of total educational expenditure and represents virtually no increase above the pre-war level.

5. The increase in educational expenditure at each school level

Figure III.A.3(1) shows how the expenditure at each school level increased compared with the increase in national income. The following is indicated:

a) In the first period (1890-1910) when the proportion of educational expenditure to national income increased, emphasis was laid on the expansion of compulsory education. In the second period (1920-1930) the expansion of secondary and higher education accounted for a large proportion of expenditure. In the third period (1950-1954) the expansion of compulsory education once again accounted for a large proportion of expenditure.

b) After 1955 expenditure on compulsory education remained static until in 1960 the proportion spent on secondary and higher education began to rise.

6. Educational expenditure per school-age child at each school level

Expenditure on school education is related to the size of the school-age population, the enrolment ratio and the amount spent on each pupil. Consequently it is affected even by the national increase or decrease of the school-age population. Total educational expenditure per school-age child equals the enrolment rate multiplied by the average amount spent on each enrolled student. The quantity and quality of school education depends on this equation. This can be seen in Figure III.A.3(2) which illustrates that compulsory education received priority in educational expenditure from the early Meiji years to 1915, but that, after that, secondary and higher education was expanded - an expansion which has recently been accelerated.

7. A comparison of the ratio of educational expenditure to national income in various countries

The ratio of educational expenditure to per capita national income is given, in Figure III.A.4, for Japan, the United Kingdom and the United States. The following comparisons are drawn:

a) Notwithstanding the low level of her national income, Japan is amongst those countries which devotes a very large proportion of that national income to educational expenditure.

b) In countries other than Japan, the ratio of educational expenditure to national income has risen more rapidly since World War II.

c) As the income level of our people rises further, it is likely that, in line with development in other countries, our relative educational expenditure will also increase.

8. A comparison of public expenditure on education in various countries

Figure III.A.5 shows that the ratio of public expenditure on education to national income has risen since 1935 in all the countries surveyed except Japan. In Japan the growth of public expenditure on education has, in relative terms, fallen since 1955 and now compares unfavourably with that of other countries.

Figure III. A.3(1)

THE PERCENTAGE OF NATIONAL INCOME SPENT ON DIFFERENT LEVELS OF EDUCATION

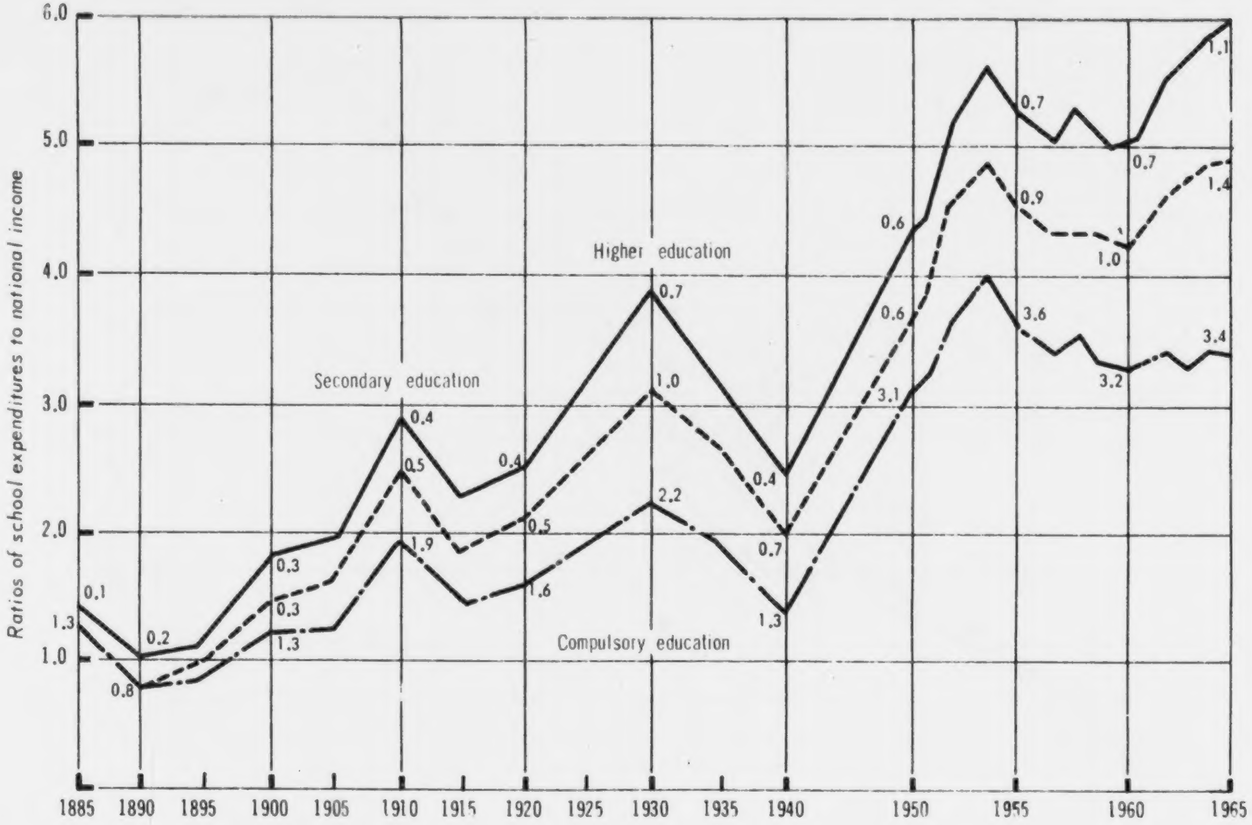


Figure III.A.3(2)

THE RELATIONSHIP BETWEEN EDUCATIONAL EXPENDITURE PER STUDENT AT DIFFERENT LEVELS OF EDUCATION AND NATIONAL INCOME PER CAPITA

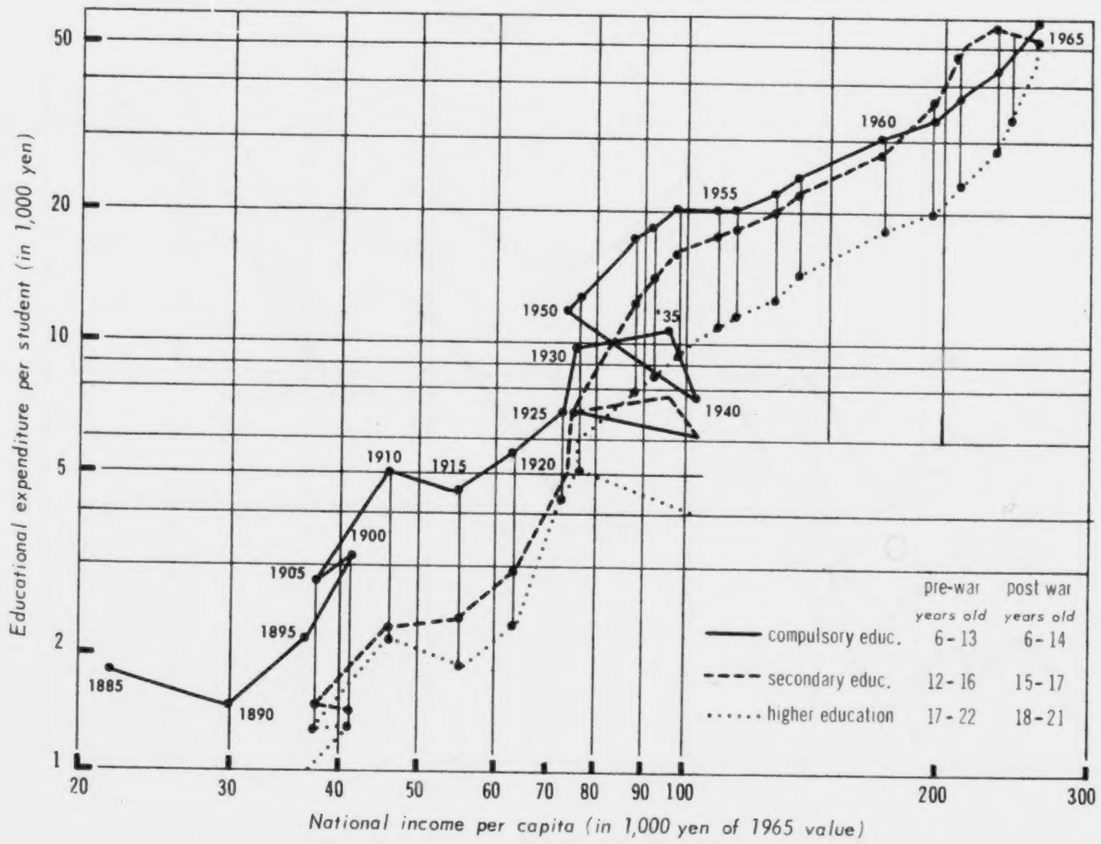


Figure III.A.4

NATIONAL INCOME PER CAPITA AND THE PERCENTAGE OF NATIONAL INCOME SPENT ON EDUCATION IN JAPAN, UNITED KINGDOM AND USA

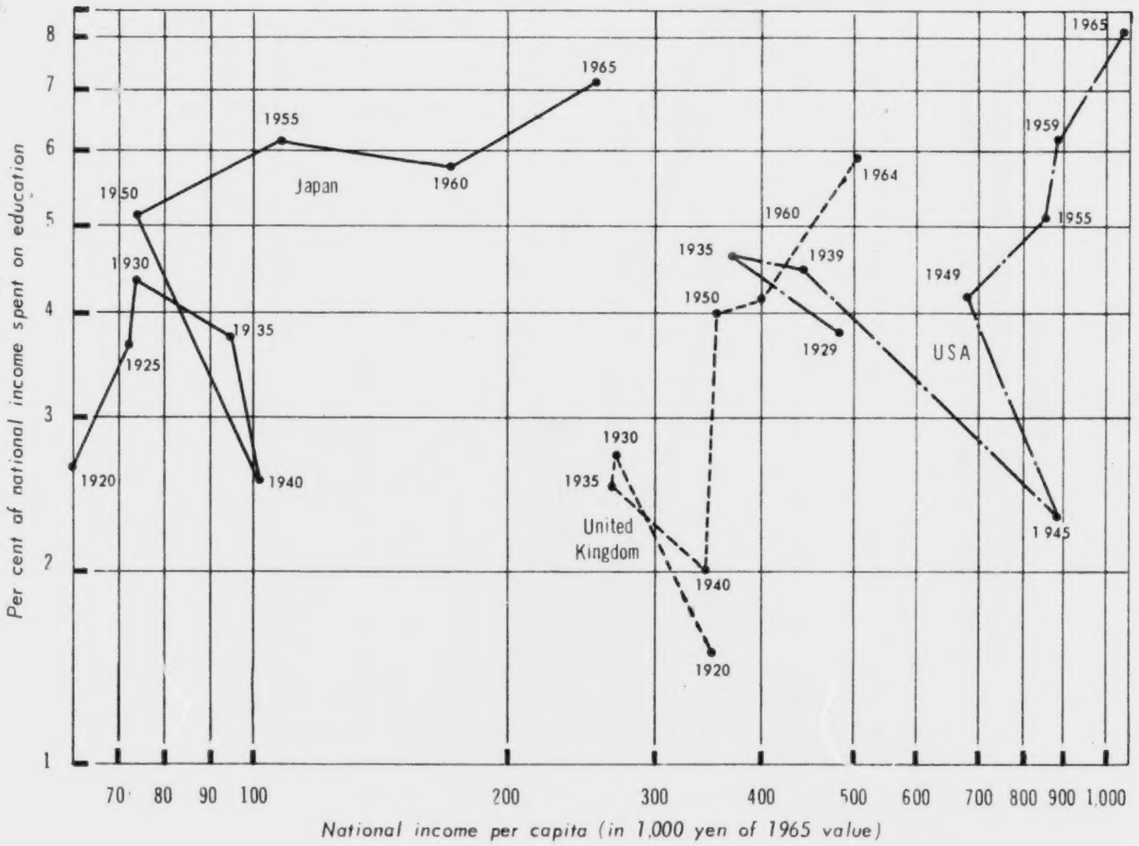
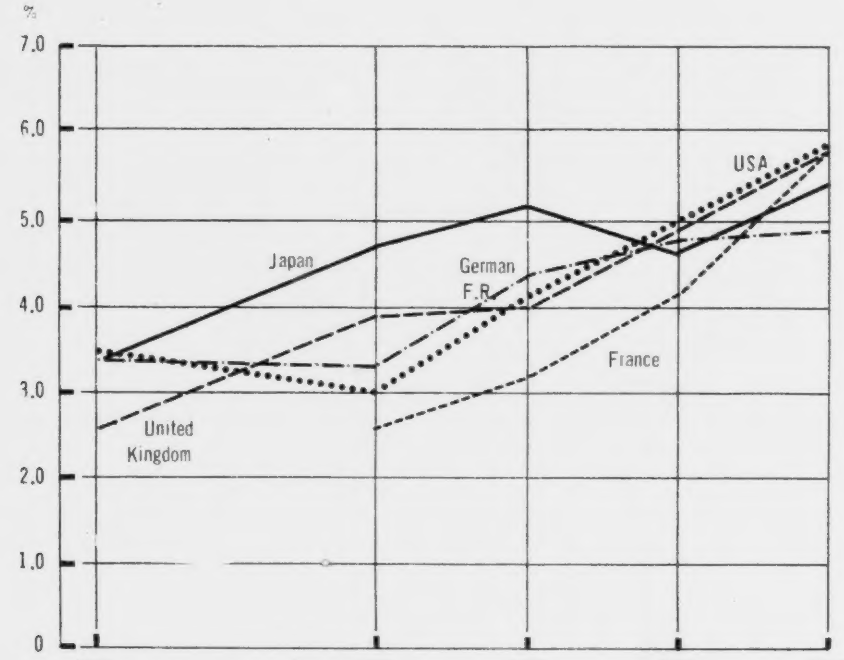


Figure III. A.5

THE RATIO OF PUBLIC EDUCATIONAL EXPENDITURE TO NATIONAL INCOME IN FOUR SELECTED COUNTRIES



II. The Growth of Educational Expenditure; the Emphasis on Quantity or Quality

1. The spread of education and "unit educational costs"

Expenditure on school education may form either an attempt to diffuse education - to increase the numbers being educated - or an attempt to increase the amount spent on the education of each student - to be conceptualised as an increase in "unit educational costs". Figures III.A.6(1), (2) and (3) indicate which type of expenditure has been given priority in the past. (Here the unit educational costs are computed in terms of 1965 values). The following is indicated:

a) In compulsory education, from the inauguration of the modern school system until 1915, expenditure was exclusively devoted to raising the numbers enrolled. When, after 1915, these numbers approximated 99 per cent of the school-age population, expenditure began to focus on increasing unit educational costs.

b) In secondary education the emphasis was placed on achieving high unit educational costs during the Meiji Era. In the 1920s, however, (during the Taisho and early Showa Eras), it was the spread of education, rather than increasing unit educational costs, that was emphasised. After World War II the percentage of the school-age population enrolled in secondary education was brought to double that of the 1920s. By 1963 in secondary education both quantity and quality were receiving emphasis. Present emphasis, however, is still on increasing the numbers enrolled.

c) In higher education, the policy of maintaining high unit costs was followed throughout the Meiji and Taisho Eras, but by the beginning of World War II these costs had declined substantially. After the war, twice the previous numbers of students were encouraged to enter higher education. Numbers rose until 1955, when efforts were again made to increase unit educational costs. These costs passed their previous pre-war level in 1959. Since 1963, however, it has been the growth of student numbers, rather than of unit educational costs, that has been most conspicuous.

2. A comparison of the expansion of school education in different countries

A comparison of the relative emphasis given by different countries to expanding the numbers enrolled in school education,or to raising unit educational costs, is given in Figures III.A.7(1) and (2).

a) In primary and secondary education, the United States, the United Kingdom and Japan have maximised the numbers of pupils enrolled in the last ten years, and now emphasise increasing unit educational costs. The German Federal Republic, however, has tried to increase unit educational costs whilst leaving the enrolment rate at a rather low level.

b) In higher education, the direction taken by Japan and the United States has been different from that of the United Kingdom, the German Federal Republic and other European countries. Japan and the United States have mainly emphasised the expansion of student numbers, but the other countries have sought, rather, to increase unit educational costs. In the last ten years Japan has continued to emphasise quantitative expansion, but the United States has begun to try to increase unit educational costs as well.

Figure III. A.6(1)

THE RELATIONSHIP BETWEEN THE ENROLMENT RATIO AND UNIT COSTS PER PUPIL IN COMPULSORY EDUCATION

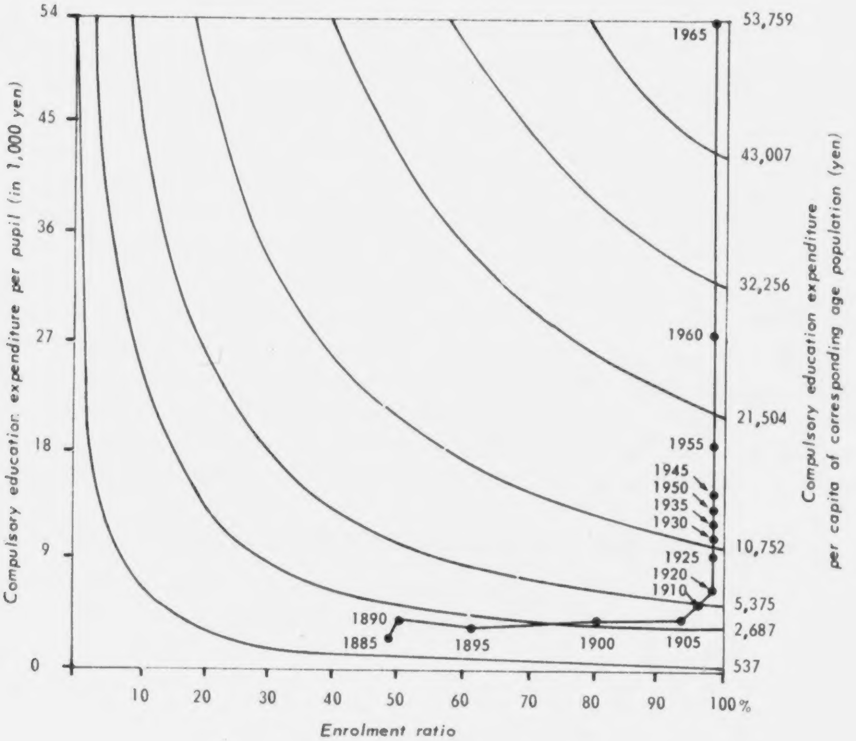


Figure III.A.6(2)

THE RELATIONSHIP BETWEEN THE ENROLMENT RATIO AND UNIT COSTS PER STUDENT IN SECONDARY EDUCATION

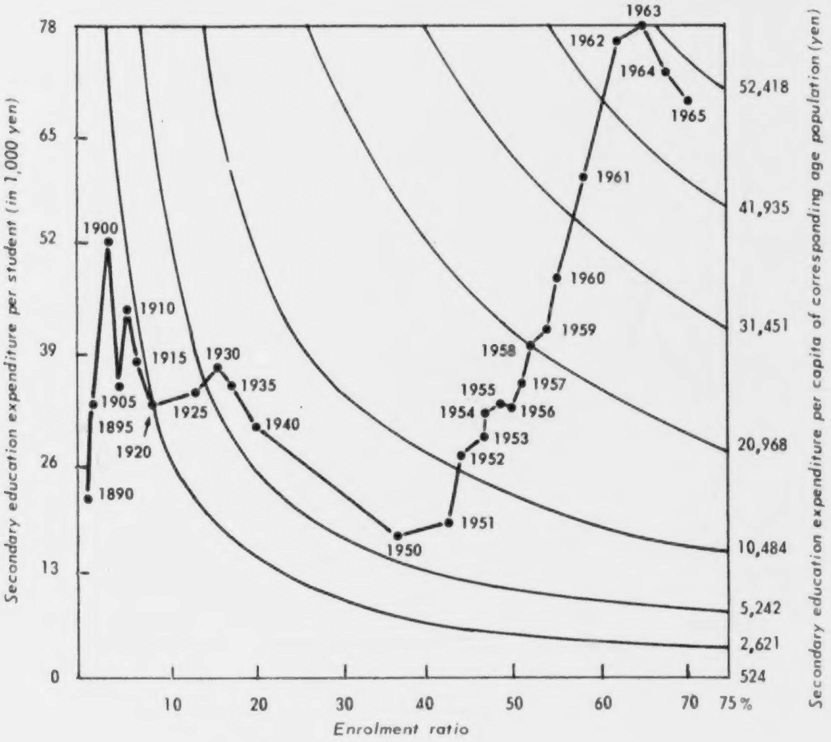


Figure III. A.6 (3)

THE RELATIONSHIP BETWEEN THE ENROLMENT RATIO AND UNIT COSTS PER STUDENT IN HIGHER EDUCATION

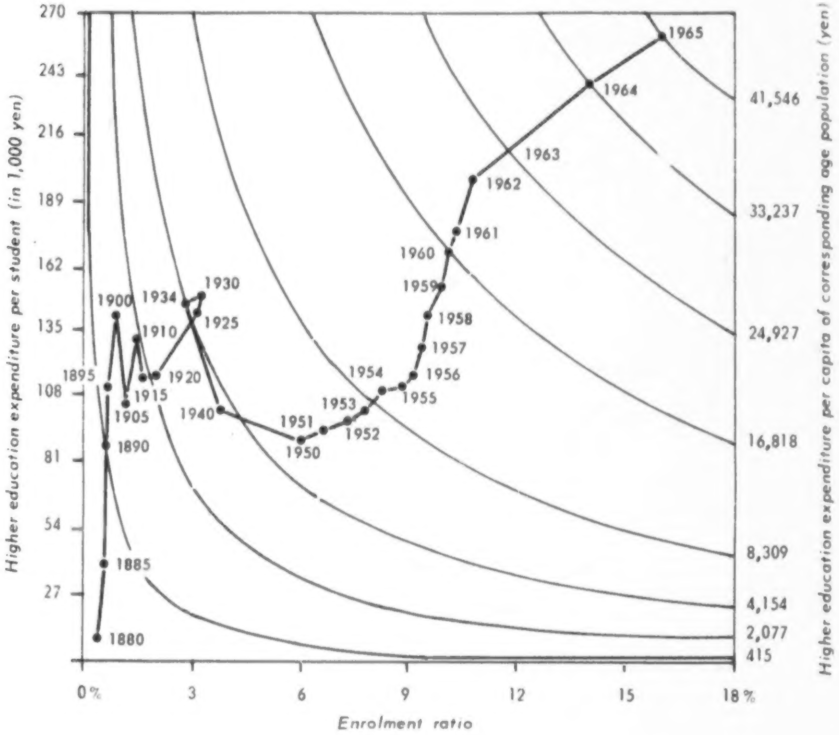


Figure III. A.7(1)

THE RELATIONSHIP BETWEEN THE ENROLMENT RATIO AND UNIT RECURRENT COSTS PER STUDENT IN PRIMARY AND SECONDARY EDUCATION IN FOUR SELECTED COUNTRIES

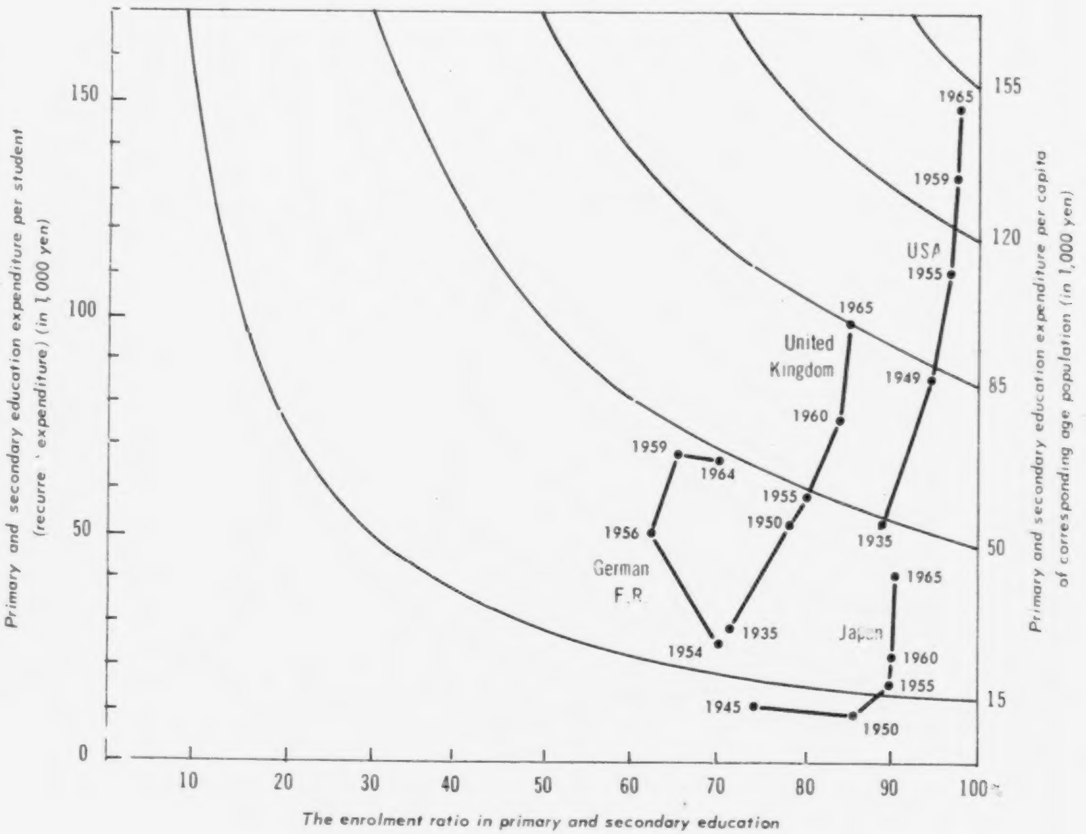
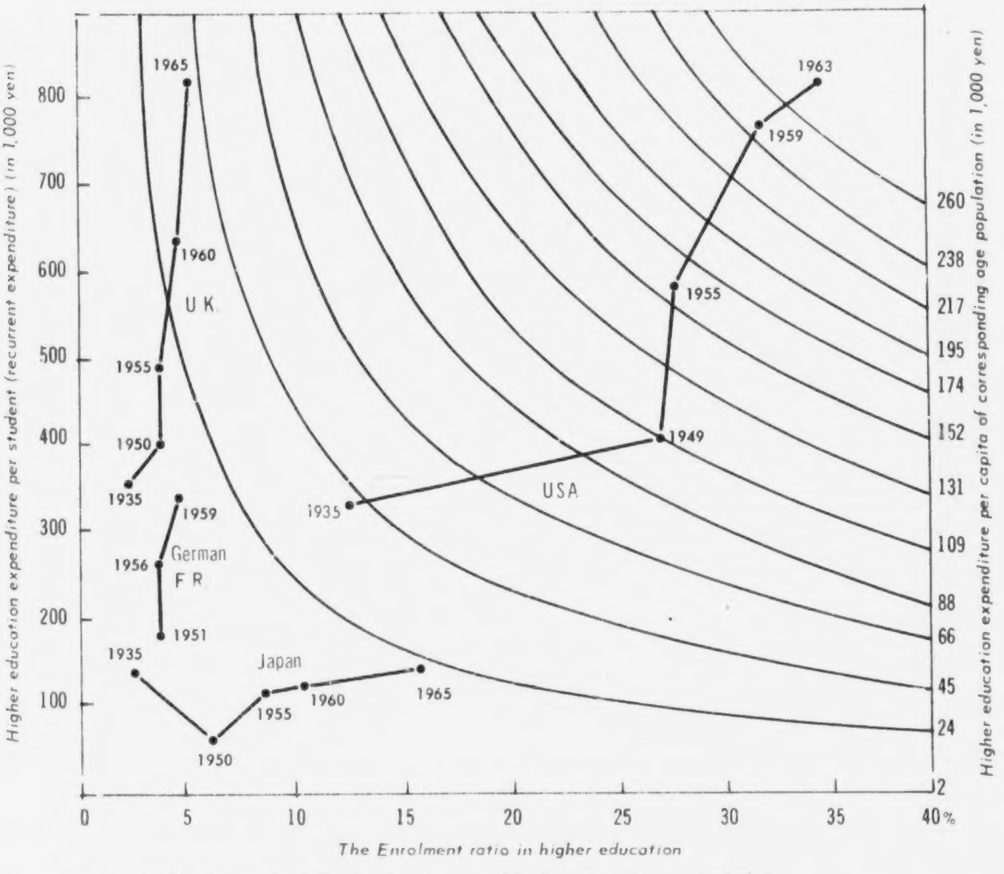


Figure III A 7(2)

THE RELATIONSHIP BETWEEN THE ENROLMENT RATIO AND UNIT RECURRENT COSTS PER STUDENT IN HIGHER EDUCATION IN FOUR SELECTED COUNTRIES



Note: In this figure, the following institutions of higher education are included:

USA: universities and junior colleges,

United Kingdom: universities only,

Germany: public universities and Hochschulen and teachers' training colleges.

3. A comparison of unit educational costs in different countries

It is difficult to compare the values of unit costs between countries, though it is important to do so as an increase in unit educational costs has a bearing on the quality of education offered. Figures III.A.8(1) and (2) show what changes unit educational costs, in the countries surveyed, have undergone in relation to per capita income. The following is apparent:

a) Unit educational costs for primary and secondary education rise in proportion to per capita income. Japan is no exception here.

b) In higher education, however, different enrolment rates give rise to considerable differences in unit educational costs. Figure III.A.8(3) compares unit costs of education between countries in an attempt to explain the low unit educational costs in Japan. These could be a result of Japan's emphasis on quantitative expansion (previously discussed) or the result of a smaller allocation of her educational expenditure to higher education. It is indicated, however, that the unit costs of higher education in the United Kingdom and German Federal Republic are low, compared with their respective income levels, whilst those of Japan and the United States are higher. In the unit costs allocated for primary and secondary education, however, Japan still lags behind the other countries. Therefore we can explain the low unit educational costs in higher education in Japan in terms of Japan's emphasis on expanding student numbers.

III. The Accumulation of Educational Capital

1. "Unit Capital Equipment Costs of Education"

The financing of education must be looked at on two levels: one must calculate the amount of capital invested in expanding the human and material components of educational institutions, and one must also assess recurrent expenditure. Investment capital per student may be defined as the "capital equipment units" of education; these will indicate improvements in the educational environment. Recurrent costs per student plus capital expenditure are included in the concept of "unit educational costs" referred to previously. Thus we have:

Unit educational costs = the recurrent expenditure on education plus the capital investment in education per student.

Unit capital equipment costs of education = capital investment, per student, in material equipment and teachers.

2. Capital expenditure on school education

Figure III.A.9 shows, by school level, the proportion of annual expenditure on school education devoted to capital expenditure. It indicates that:

a) Capital expenditure on pre-primary education was emphasised during the third and fourth decades of the Meiji Era (1897-1910) and has received a renewed emphasis since 1955.

b) Capital expenditure on primary education fluctuated during the Meiji Era when emphasis was placed on compulsory education. It has since remained at a level of 20 per cent.

Figure III.A.8(1)

AN INTERNATIONAL COMPARISON OF UNIT RECURRENT COSTS IN PRIMARY AND SECONDARY EDUCATION AND NATIONAL INCOME PER CAPITA

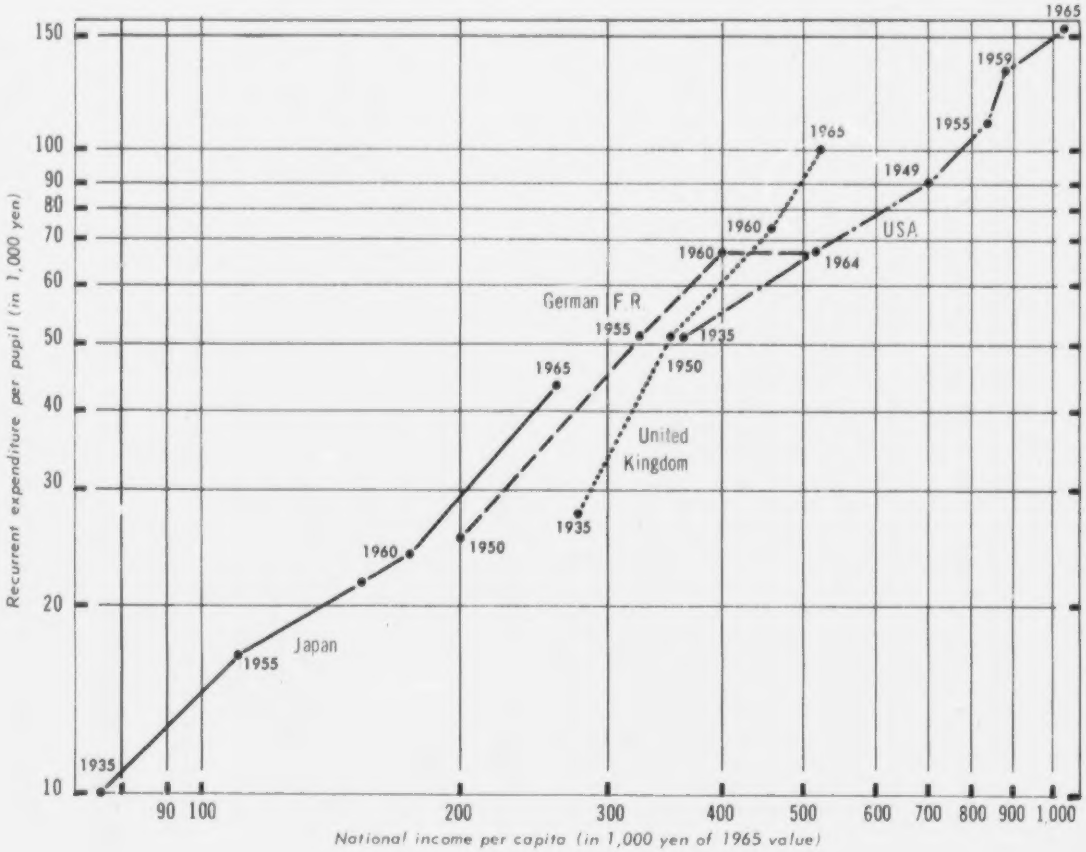


Figure III. A.8(2)

AN INTERNATIONAL COMPARISON OF UNIT RECURRENT COSTS IN HIGHER EDUCATION AND NATIONAL INCOME PER CAPITA

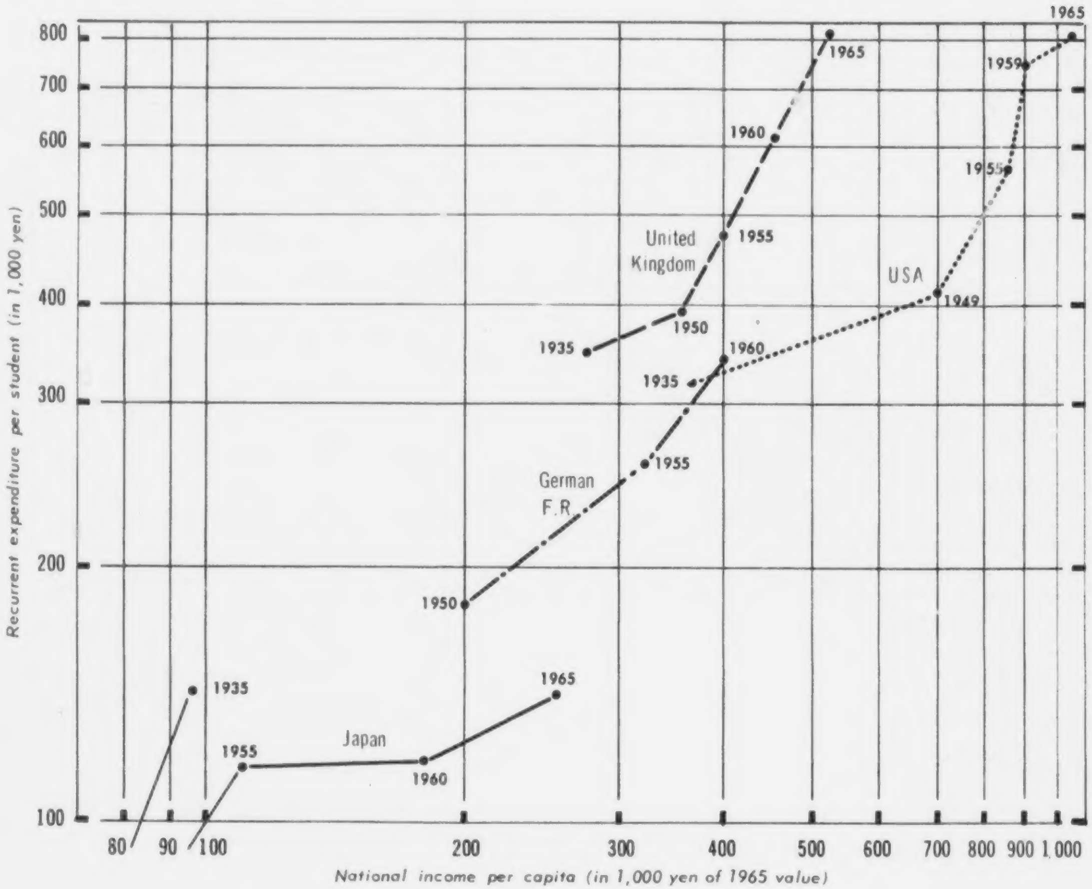


Figure III. A.8(3)

AN INTERNATIONAL COMPARISON OF UNIT COSTS PER STUDENT IN PRIMARY AND SECONDARY AND HIGHER EDUCATION, AND OF NATIONAL INCOME PER CAPITA

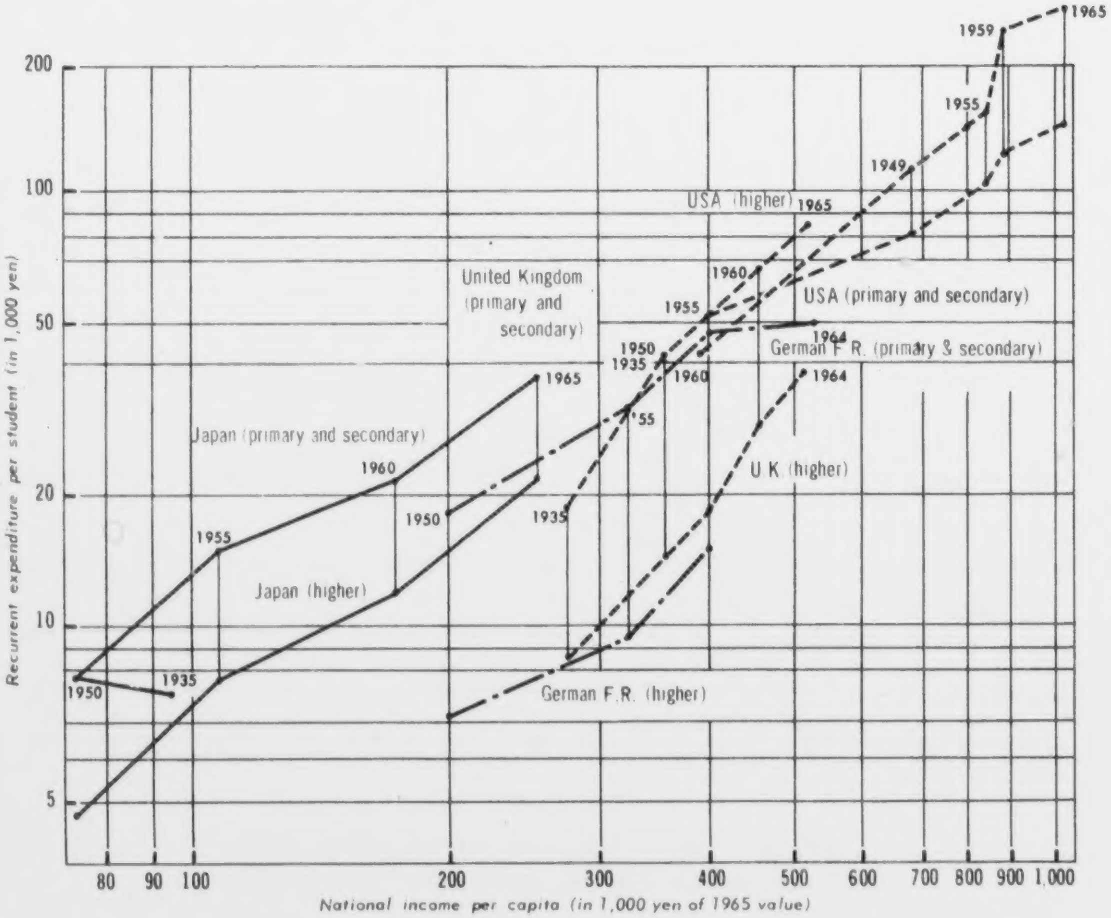
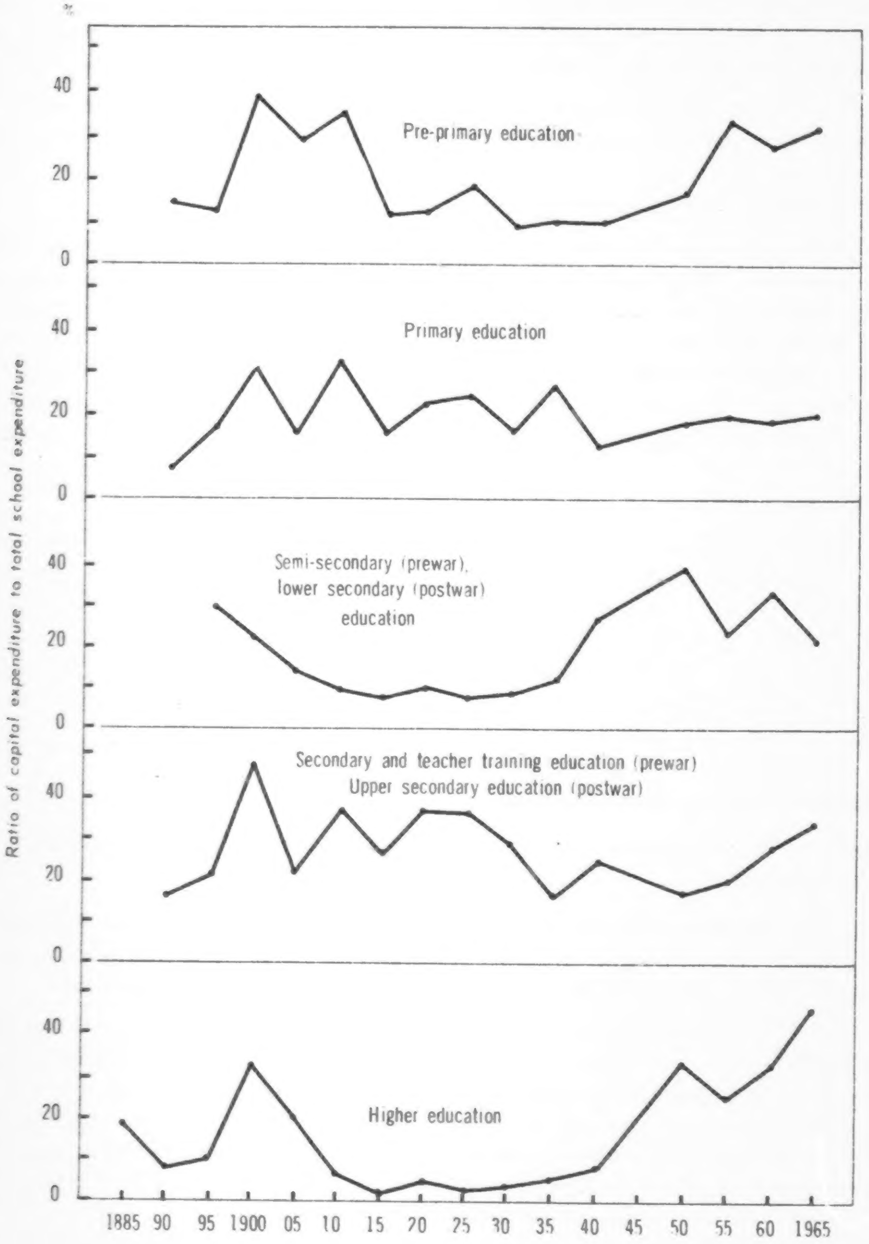


Figure III. A.9

THE RATIO OF CAPITAL EXPENDITURE
TO TOTAL EDUCATIONAL EXPENDITURE BY SCHOOL LEVEL



c) In semi-secondary education (technical supplementary schools, apprentice schools and youth schools) capital expenditure was high during the Meiji Era and the period prior to the war. Following the war it rose sharply as the lower secondary schools were expanded under the new system, but it has since been settling gradually to 20 per cent.

d) From the end of the Nineteenth Century until the war, a large proportion of capital expenditure went on the middle and normal schools. Capital expenditure on Secondary education has grown again since 1955.

e) Capital expenditure on higher education rose during the third decade of the Meiji Era, but then lost ground. Since the war, however, it has again been rising rapidly.

3. Unit "material" capital equipment costs

It is hard to calculate unit material capital equipment costs from the annual figures of capital expenditure. Trial figures based on the estimated values of new equipment for the financial year ending in 1966 are as follows: unit material capital equipment costs at every school level in 1951 were close to the pre-war level and increased 3.3, 3.9, 2.3 and 1.8 times respectively, in primary schools, lower secondary schools, upper secondary schools, universities and colleges by 1965. This shows that the level of capital investment in upper secondary schools falls behind that of compulsory education.

4. School land

The unit capital equipment costs mentioned above do not include school land. An inquiry into area per student shows that the figure increased from 14 to 26 square metres between 1952 and 1965 for primary school pupils, and from 22 to 28 square metres for secondary school pupils, whilst for students in higher education it declined from 80 to 49 square metres. This is explained by the fact that the number of pupils and students increased, 0.87, 1.5 and 2.2 times respectively in primary, secondary and higher education, whereas the area of school land increased 1.6, 1.9 and 1.4 times respectively.

5. Accumulation of educational debts

The amount of debts accruing to school establishment bodies in the financial year ending in 1966 was as follows:

a) Local public bodies carried debts of 191 billion yen. These debts accounted for 17 per cent of the total material assets (excluding school land) of all the public primary, lower and upper secondary schools - in toto 1,120 billion yen.

b) Of the 255 billion yen debt carried by the private schools, 156.1 billion yen was fixed. This debt accounted for 51 per cent of the total material assets of all private schools (excluding school land) which totalled 305.8 billion yen.
In addition, public loans to students through the Japanese Scholarship Association (Nihon Ikuei Kai), for the financial year ending 1966, totalled 44.9 billion yen.
There were also other scholarships granted by the Welfare Fund for Widows and Dependent Children, Prefectures and private bodies.
These will be studied in more detail under the section entitled "Economic and Cultural Effects of Educational Investment".

IV. Potential Improvements Suggested by these Findings

1. In considering what proportion of the national income should be devoted to educational expenditure, one must try to develop a coherent educational budget and define its priorities precisely. In so doing, it will be useful to bear in mind that:

a) In contrast with other countries, Japan's expenditure on education has, since 1954, shown little real increase.

b) The ratio of public expenditure on education to total educational expenditure has declined in Japan, although it has risen in other countries.

2. Unit educational costs were raised in compulsory education in Japan to an international level, but unit costs in upper secondary and higher education only received attention after 1955. Today the state of unit costs in higher education in Japan is still far from satisfactory. In addition, one notes that, in terms of capital equipment costs, upper secondary and higher education lags behind compulsory education.

All this suggests the necessity of rationalising and increasing expenditure at all levels of education in the future.

3. Considering the high percentage of debts accumulated by the private educational bodies, and the slow improvement of the level of their capital investments, a thorough examination should be made of the financial bases of the private schools.

B. THE DISTRIBUTION AND SHARING OF THE BURDEN OF EDUCATIONAL EXPENDITURE AND ITS EFFECT ON STUDENTS AND SCHOOLS

I. The Changing Pattern of Educational Expenditure at State, Prefectural and Municipal Levels

1. The relative importance of public expenditure on education

The ratio of public expenditure on education to total educational expenditure has declined, mainly because of increased spending by the private sector on pre-primary, secondary and higher education.

2. The percentage of total public expenditure spent on education

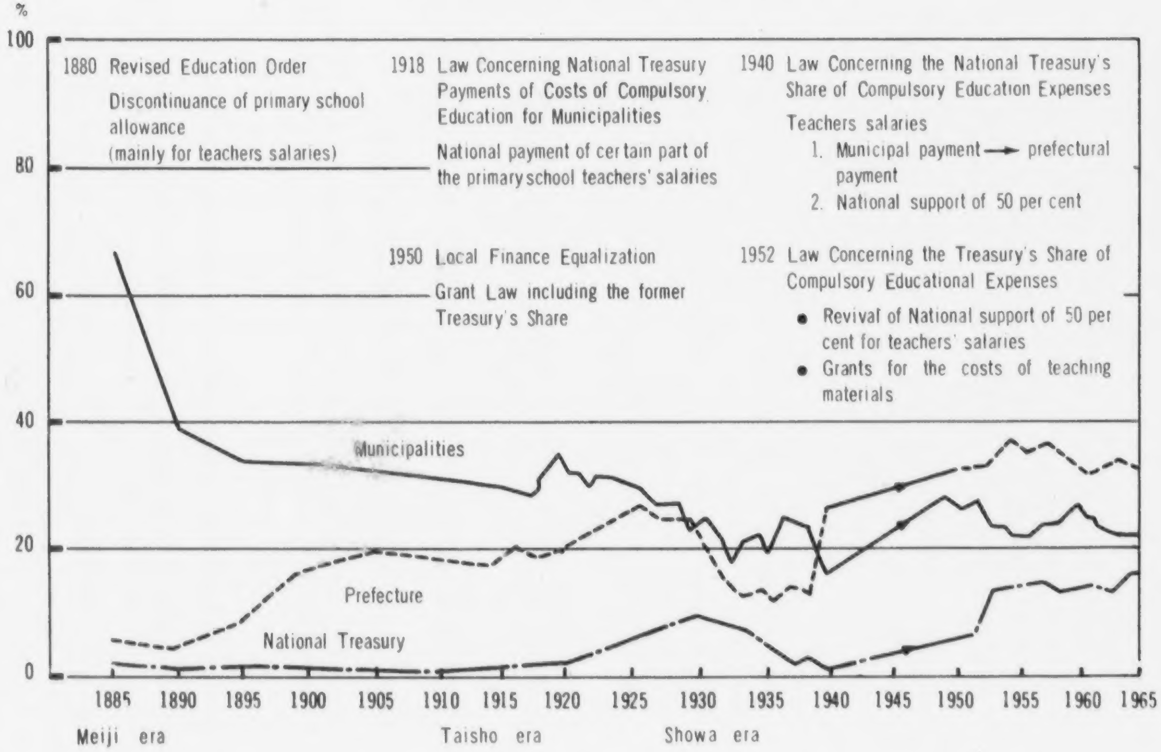
Despite the above-mentioned decline, the ratio of public expenditure on education to total public expenditure has been generally rising. This is illustrated below:

a) Figure III.B.1 illustrates the changes in the ratio of governmental expenditure on education to total governmental expenditure. This figure, which was in the region of 1 or 2 per cent up to the early Taisho Era, has risen steadily except during the years between 1935 and 1952. Whilst the percentage spent on education by the cities, towns and villages declined from a peak of 70 per cent during the early Meiji period, that of the prefectures rose to over 30 per cent after the war. These changes reflected major reforms in the financing of education, e.g.:

- In 1880, the Primary School Allowance (mainly for teachers' salaries) which was as old as the school system itself, was discontinued under the Revised Education Order which stipulated that the maintenance costs of primary schools be paid in principle by the cities, towns and villages.

Figure III. B.1

THE PERCENTAGE OF TOTAL PUBLIC EXPENDITURE SPENT ON EDUCATION BY ADMINISTRATIVE LEVEL



- In 1918, "The Law Concerning Treasury Payment of the Costs of Compulsory Education for Municipalities" stipulated that the State should contribute to the payment of primary teachers' salaries.
- In 1940, "The Law Concerning the Treasury's Share of the Cost of Compulsory Education" stipulated that the prefectures, rather than the municipalities, should meet half the cost of teachers' salaries with the State contributing the other half.
- In 1950, the treasury's contribution to teachers' salaries was incorporated into the equalisation grant under the "Local Finance Equalisation Grant Law".
- In 1952, "The Law Concerning the Treasury's Payment of the Cost of Compulsory Education", stipulated that teachers' salaries be taken out of the equalisation grant and paid separately by the State. It was also laid down that the State should make grants for the purchase of teaching material.

b) An assessment of the ratio of public educational expenditure to total public expenditure is complicated by the transference of certain items of revenue between the State, the prefectures and the municipalities. One needs to ascertain "real" revenue and "real" disbursement in order to arrive at the "real" ratio of educational expenditure to total public expenditure. This "real" ratio is made up of the total expenditure on education of the three public bodies involved to total public expenditure. This real ratio is a little higher than the nominal one for the State or municipalities considered separately, but is still lower than that for the prefectures.

3. The distribution of educational expenditure between the State, the municipalities and the prefectures

Figure III.B.2 illustrates the contribution made by each of the above authorities to the financing of education. The percentages contributed by the municipalities lay between 60 per cent and 80 per cent during the period from the Meiji to the late Taisho Era. Since the late Taisho Era, however, this percentage has declined to 25 per cent. Correspondingly, State and prefectural contributions have increased, with the State now contributing 35 per cent and the prefectures 40 per cent. It is worth considering these facts in the light of the relative decline of the State's contribution to total public expenditure.

4. Differences between the prefectures in their expenditure on education

The patterns of educational expenditure in prefectures and municipalities may be formulated as shown on page 181.

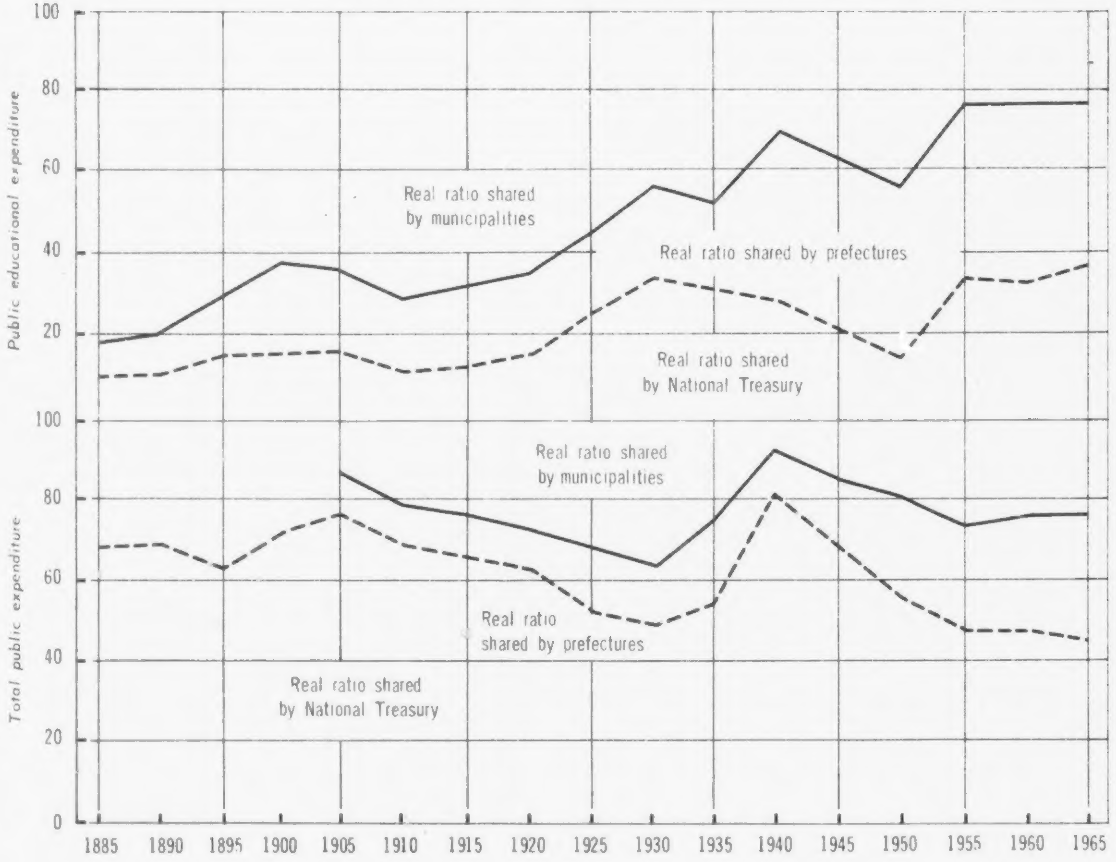
The following points emerge from a comparison of prefectures for the financial year ending 1965:

a) Figure III.B.3 shows A's relationship to B. In about one-third of all the prefectures, A and B are in proportion to one another within a limit of plus or minus 50 per cent. B is particularly high in Iwata, Tokyo, Nara and Saga and low in Fukui, Aichi, Osaka, Hyogo and Wakayama.

b) Figure III.B.4 shows C's relationship to D. Here one can see that of prefectures with a high financial resource index, only Tokyo has a high per capita expenditure on education; all other prefectures fall below the national average. Some prefectures, however, including Yamagata, Nagano, Tottori, Shimane and Kochi, have a high

Figure III. B 2

THE PERCENTAGE OF PUBLIC EDUCATIONAL EXPENDITURE
AND TOTAL PUBLIC EXPENDITURE BY SOURCE



Educational Expenditure in Prefectures and Municipalities (See Figures III.B.3, 4 and 5)

Standard Financial Demand (a) = Expenditure on education (b) + Expenditure on public works + Expenditure on sanitation + Other public expenditure

Real Local Revenue = Local Allocation Tax + Standard Revenue (c)

Standard Revenue (c) = Local Tax Revenue + Other Revenue

Real Local Expenditure (a^1) = Expenditure on education (b^1) + Expenditure on public works + Expenditure on sanitation + Other public expenditure

$$A = \frac{\text{Real Local Expenditure}}{\text{Standard Financial Demand}} = \frac{a^1}{a} \quad \text{(the excess rate)}$$

$$B = \frac{\text{Real Educational Expenditure}}{\text{Standard Educational Demand}} = \frac{b^1}{b} \quad \text{(the excess rate)}$$

$$C = \text{Financial Resource Index} = \frac{c}{a}$$

D = Educational expenditure per school-age child = D1 - on compulsory education

D2 - on upper secondary education

level of educational expenditure per head of their corresponding school-age population, although their financial resource index is low.

c) Figure III.B.5 shows whether prefectures place most emphasis on D1 or D2. Clearly there are groups of more or less similar prefectures: per capita educational expenditure is high for both compulsory and upper secondary education in Nagano and Toyama Prefectures, for example; per capita educational expenditure is, however, highest of all in Tottori and lowest in Aichi in upper secondary education; Tokyo has a very high level of per capita expenditure on compulsory education.
The findings show that prefectures with below average financial resources devote more of their total expenditure to education than do others. To put it differently, they have a higher ratio of per capita expenditure to financial resources. They also lay emphasis on per capita expenditure in compulsory education, whereas other prefectures spend below the average amount on compulsory education and above average on upper secondary education.

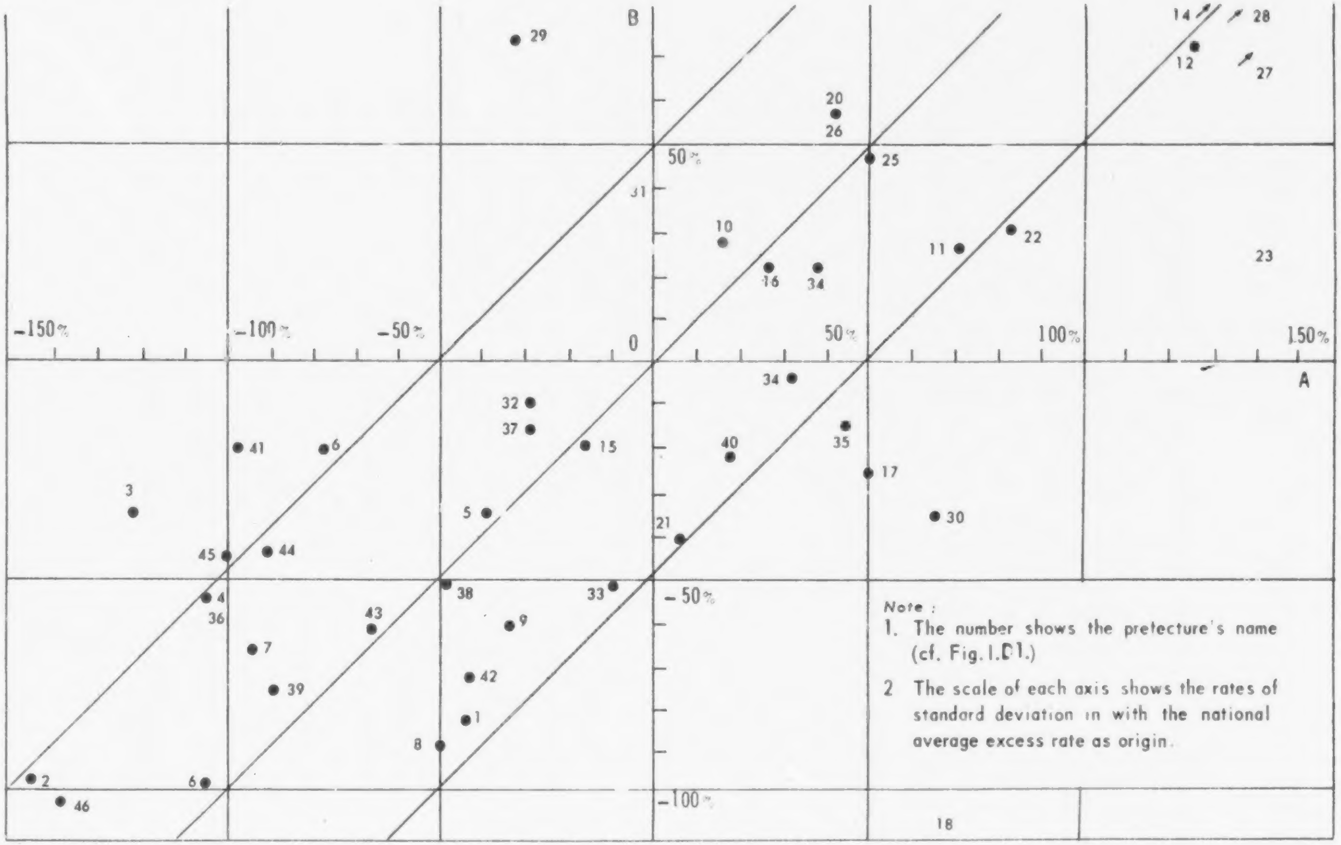
5. A comparison of prefectural and municipal expenditures on the different social services

In order to assess the relationship of educational expenditure to total public expenditure more accurately, the relative amounts spent by local public authorities on other public works and services were examined:

a) Between 1915 and 1939, public authorities devoted the largest parts of their budgets to education, but the proportion spent on education then began to fall even though their total budgets grew.

Figure III.B.3

INCREASED RATES OF TOTAL PUBLIC EXPENDITURE AND EDUCATIONAL EXPENDITURE, BY PREFECTURE, 1965



Note :

1. The number shows the prefecture's name (cf. Fig. I.D1.)
2. The scale of each axis shows the rates of standard deviation in with the national average excess rate as origin.

Figure III. B.4

THE DISTRIBUTION OF PREFECTURES BY FINANCIAL RESOURCE INDEX
AND BY EDUCATIONAL EXPENDITURE PER CAPITA
OF CORRESPONDING AGE POPULATION, AS OF 1965

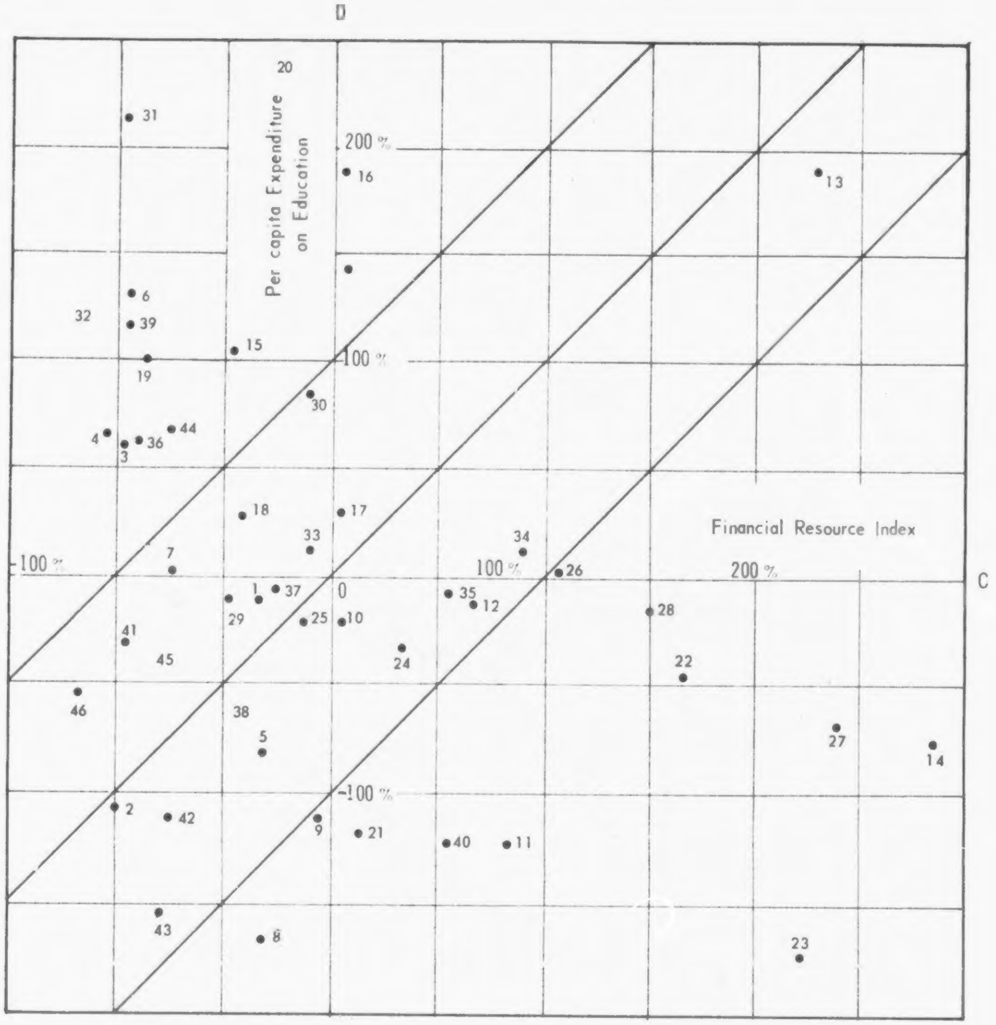
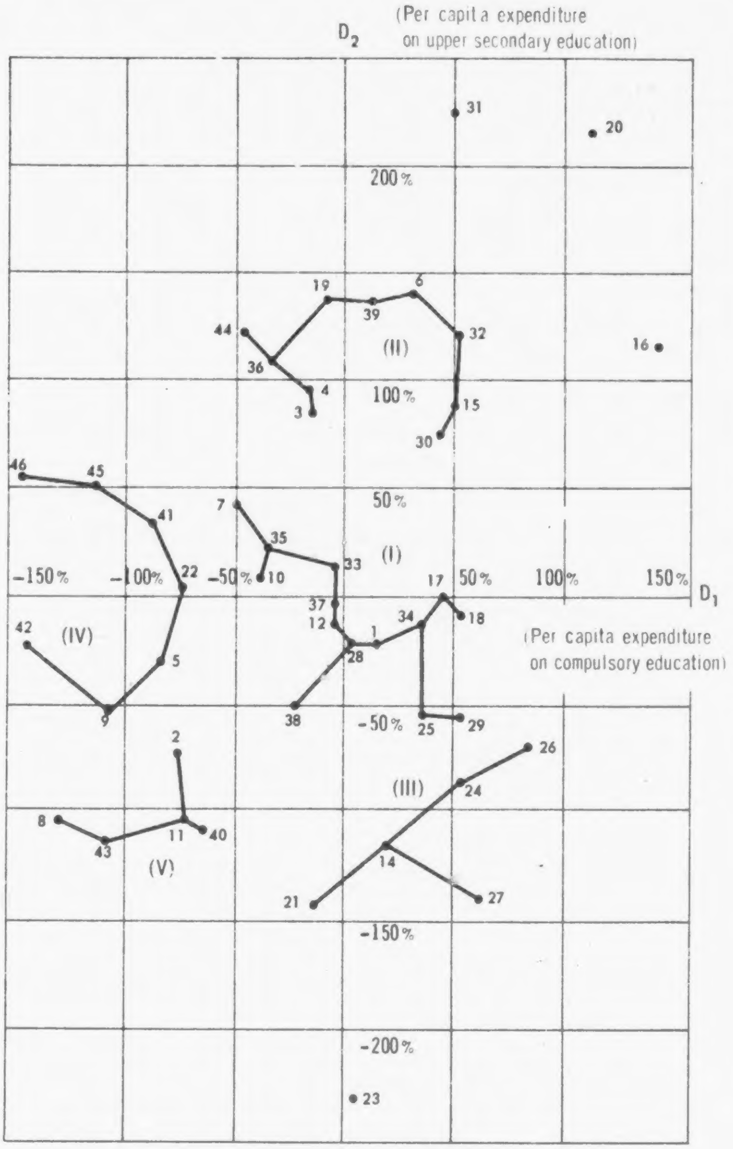


Figure III. B.5

THE DISTRIBUTION OF PREFECTURES BY EXPENDITURE
ON COMPULSORY EDUCATION
AND ON UPPER SECONDARY EDUCATION
PER CAPITA OF CORRESPONDING AGE POPULATION, AS OF 1965



b) From 1950 until today, the percentage devoted to educational expenditure has risen to a level even higher than that of the pre-war years, being now about 25-30 per cent. Expenditure in other fields, however, in public works and on industrial projects, for example, has increased at a rate faster than that of education.

II. Public, Private and Student Expenditure on Education

1. Contributions to the costs of education at each school level

Here the following can be indicated:

a) In pre-primary education, students contributed towards 30-40 per cent of the costs of the public schools and towards over 70 per cent of the private schools, both before and after the war. Nearly half of the private schools' costs were met by borrowing.

b) In primary education, the public schools were financed completely by the local public authorities until the early years of the Taisho Era. Since the second half of the 1920s, excepting the war years, the State has met 30 per cent of these costs. The private schools have depended for finance on the students, who have provided for 50 per cent to 70 per cent of all costs, and have borrowed over 10 per cent.

c) Public, semi-secondary education before the war, and public lower-secondary education after the war, depended totally on local expenditure, until after the war the State contribution was increased to more than 30 per cent. Originally the private schools covered their costs by charging excessive fees but now they rely on the students for 60-70 per cent of their financing, and their indebtedness has increased to meet roughly 15 per cent of their current expenditure.

d) In secondary education before the war, even the public schools depended on the students for 20 per cent of their finance. At one time this figure rose to 50 per cent, but then fell to less than 15 per cent after the war. The private schools continued to depend on student fees after the war, but the percentage of the costs paid by the students did eventually fall to below 50-60 per cent with the private schools indebtedness rising to 20 per cent of their costs.

e) In higher education, both the State and the local public schools depended on the students to meet 10-20 per cent of their costs before the war, but this figure fell back to 10 per cent after the war. The private schools have tended to depend on their students for 40-50 per cent of their funds and their increased dependence on borrowing has now risen to over 30 per cent.

2. The total cost of school education (by source)

The following figures indicate (by source) the total costs of school education. These figures more than doubled in five years and, as higher education expanded, contributions from the students, the private schools and the treasury showed a proportionate increase, whilst those from the local authorities fell.

(in billion yen)

Contributors	Financial Year 1960		Financial Year 1965	
		%		%
National Treasury	176.7	26.9	422.0	27.6
Local Finances	347.1	52.8	748.5	49.1
Corporates	67.7	10.3	167.6	11.0
Beneficiaries	65.8	10.0	188.2	12.3
Total	657.3	100.0	1,526.3	100.0

3. How the costs of education are met in different countries

Figures III.B.6(1) and (2) illustrate how the costs of education are met in different countries, showing that:

a) In the United States, United Kingdom and Japan, public primary and secondary schools are supported by local funds. In the German Federal Republic the primary schools are supported locally, but the states finance the secondary schools, with the contributions of both federal and individual state government being high. The percentage of expenditure financed out of national funds is also high in Japan (50 per cent), if the allotments to education of the local finance equalisation grant are added to the state subsidies and grants.

b) In higher education, in the United States, German Federal Republic and Japan, most public institutions are supported by the State (federal or individual) and the greatest proportion of all costs is borne by the treasury. Students contribute to 10 per cent of the costs in the United States, but to a lesser extent in the German Federal Republic and Japan.
In the United Kingdom, there is no national university and private institutions play a public role. The treasury, however, meets 80 per cent of all educational costs. Compared even with the United States, the contribution from the treasury is very small in Japan. (In the United States, the treasury's contribution is, for the most part, made up of federal grants and money held in trust for research purposes.) In this light, the percentage of costs paid by students and private establishments is appreciably large. In the United Kingdom, all the students receive some sort of financial assistance, so that the students' contribution there can be discounted.

c) Changes over the last 30 years in the way in which educational costs have been shared show that in public primary and secondary education the share of the United States Federal and State Government has risen to a level equal to that of the local bodies. In higher education, also, the share of the public sector has been increasing whilst, at both public and private establishments, the students' share has been falling.

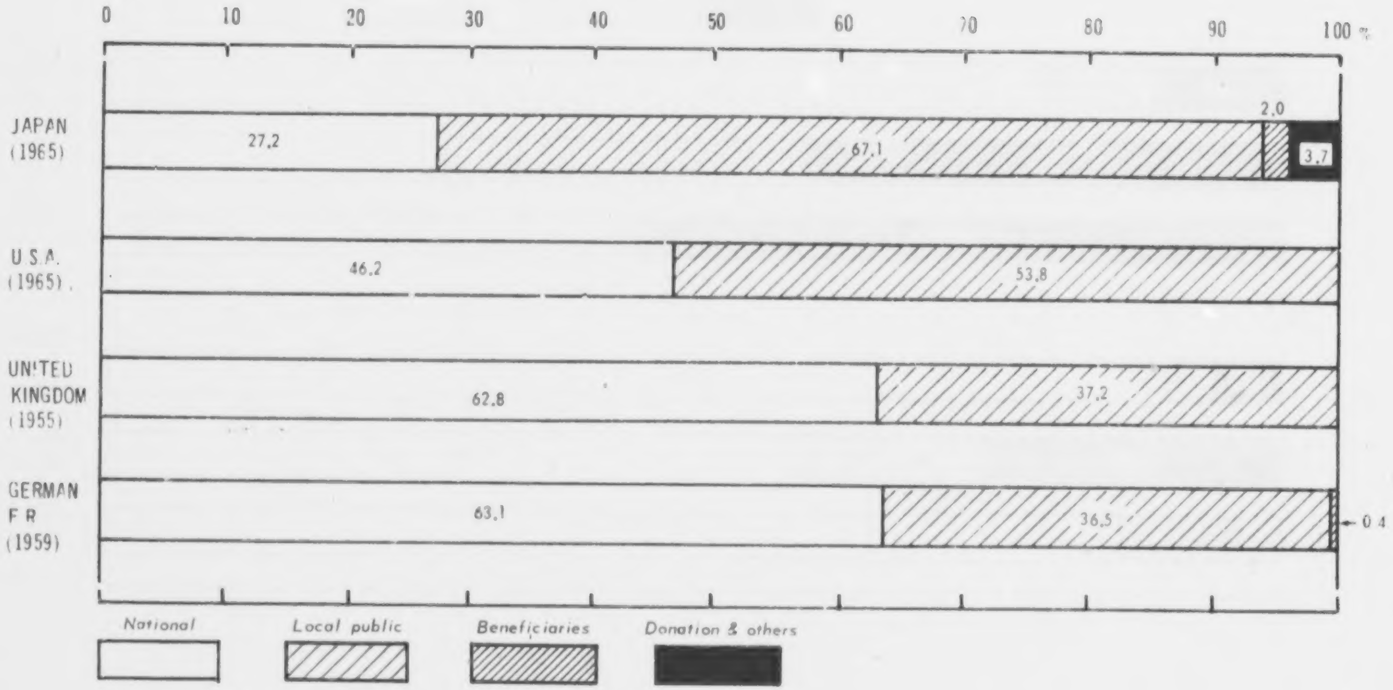
III. The Relationship between the Students' Share of Educational Costs, National Income and the Level of Consumption

1. The students' share of costs and the level of consumption

The following analysis indicates how the students' share of costs has changed in relation to changes in the level of consumption:

Figure III. B.6(1)

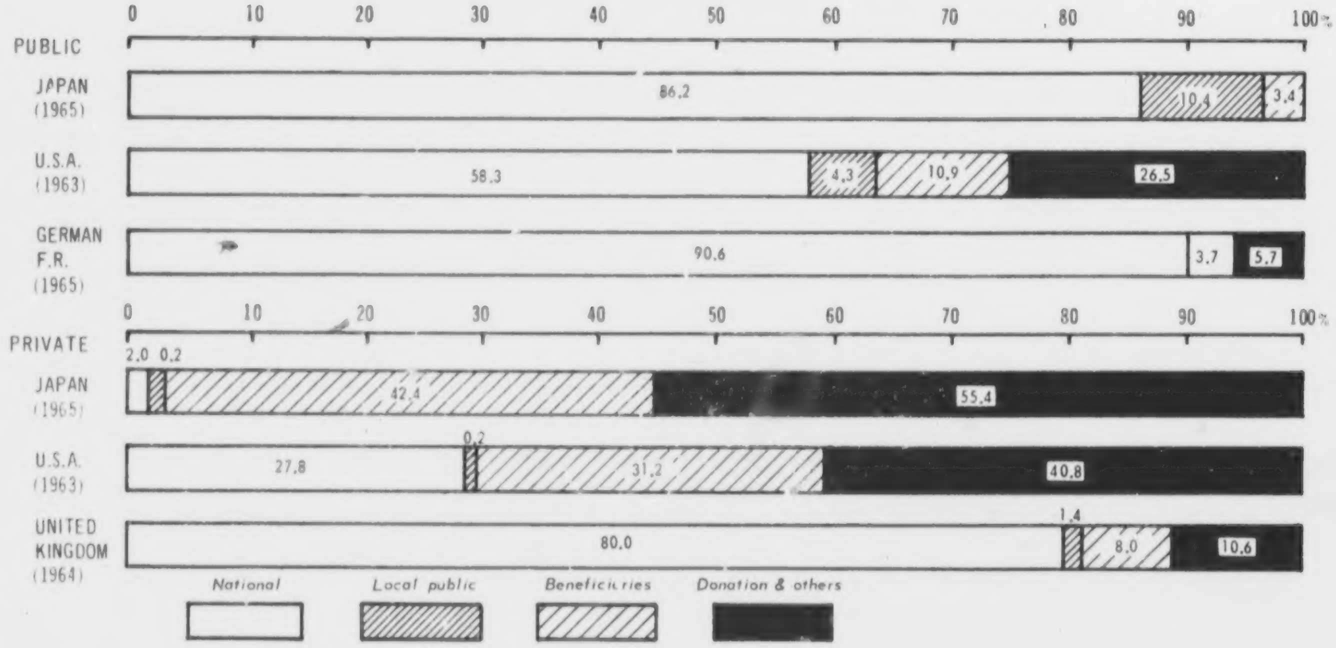
AN INTERNATIONAL COMPARISON OF SOURCES OF EXPENDITURE FOR PUBLIC PRIMARY AND SECONDARY SCHOOLS



Note «national» in the figure means «federal» for USA and «Laender» for Germany.

Figure III. B.6(2)

AN INTERNATIONAL COMPARISON OF SOURCES OF EXPENDITURE FOR PUBLIC AND PRIVATE INSTITUTIONS OF HIGHER EDUCATION



Note : «national» in the figure means «federal» for USA and «Laender» for Germany.

a) In higher education before the war, the cost of fees increased proportionately to consumption expenditure. After the war, however, the students' share of educational costs fell relative to individual consumption expenditure. Before the war, in this case, there was little to differentiate public and private schools but after the war, relative to the level of consumption, the students' share of the costs at the private schools was raised. Consequently there is now a considerable difference, in this instance, between public and private schools.

b) In secondary education, too, before the war, both private schools and public schools held the students' share of costs in a constant proportion to the level of consumption. In similar fashion to higher education, however, the private and public schools became differentiated over time.

c) In the kindergartens, the private establishments kept fees roughly the same in terms of the level of consumption both before and after the war. Public kindergartens, however, managed to lower their fees in relative terms.

2. The "Educational Restitution Rate"

Figure III.B.7 relates the students' contribution to the costs of their education, to the total per capita costs of that education. The "restitution rate" shows the value of the education that the students receive in return for their fees. It also shows the excess of school expenditure over fees received. Figure III.B.7 shows that this rate has been rising for the public schools, in fact rising sha for the universities but, for the private schools has fallen to more or less 1 per cent following their loss of other sources of revenue during and after the war.

3. The students' share of educational costs in different countries

Figure III.B.8 indicates the following trends in the relationship in different countries between the students' share of the costs of higher education and the countries' individual levels of consumption:

a) In the United States the students' share of costs both in public and private universities has been rising faster than the level of consumption since the war.

b) In the United Kingdom, too, the students' share has risen since 1955. In the German Federal Republic, however, it has been held constant.

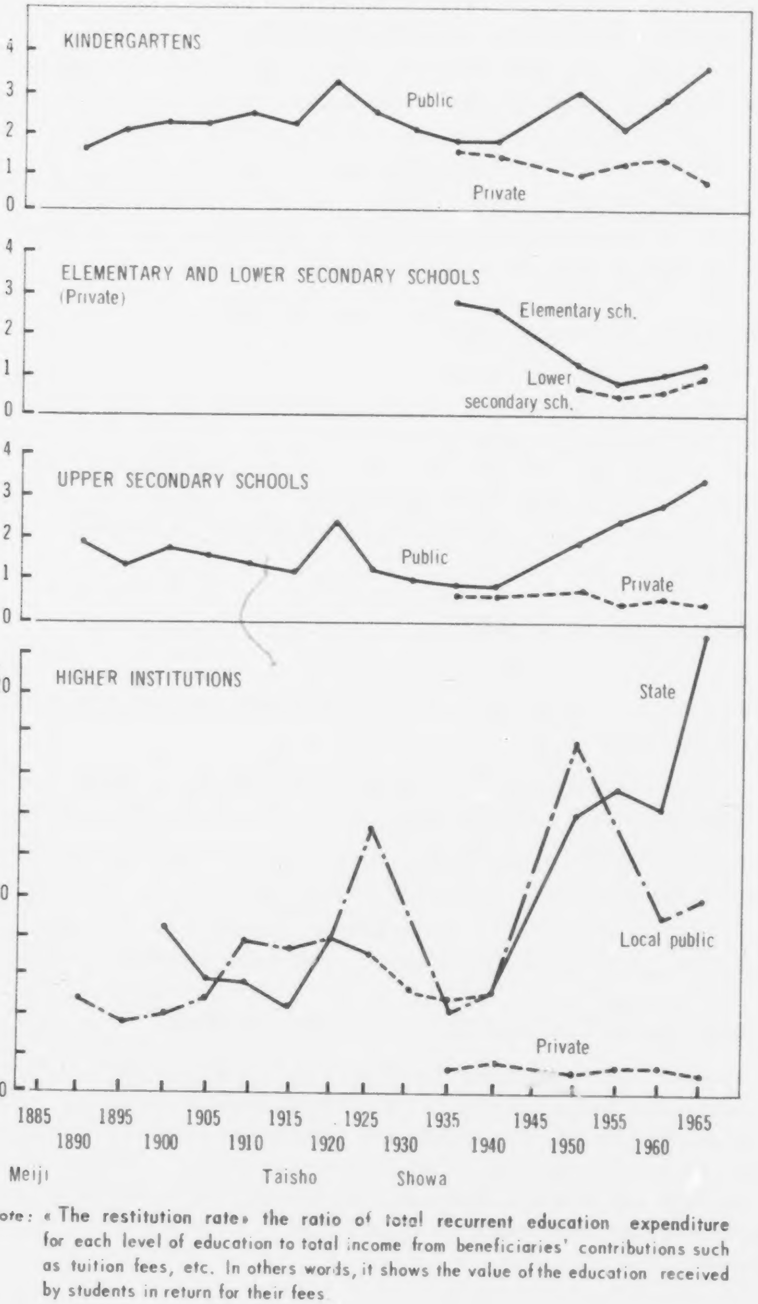
c) In Japan, the students' share in the private universities has risen since 1956 though in the public universities it has been held constant.

4. The educational restitution rate in different countries

Figure III.B.9 illustrates this rate for different countries. This rate has risen in the public universities in Japan and the German Federal Republic, but has remained more or less unchanged in recent years in the public and private universities in the United States. Comparing private universities in the United Kingdom and Japan, one finds that the rate rose for the former but remained at a low level for the latter. The situation in the United Kingdom can be explained by the drastically increased flow of grants from the public exchequer to the universities.

Figure III. B.7

THE RESTITUTION RATE OF EDUCATIONAL SERVICES TO PRIVATE INVESTMENT IN EDUCATION, BY SCHOOL LEVEL



Note: « The restitution rate » the ratio of total recurrent education expenditure for each level of education to total income from beneficiaries' contributions such as tuition fees, etc. In others words, it shows the value of the education received by students in return for their fees.

Figure III. B.8

AN INTERNATIONAL COMPARISON OF THE PEOPLE'S CONSUMPTION LEVEL AND THE STUDENT'S SHARE OF COSTS OF HIGHER EDUCATION, AS OF 1965

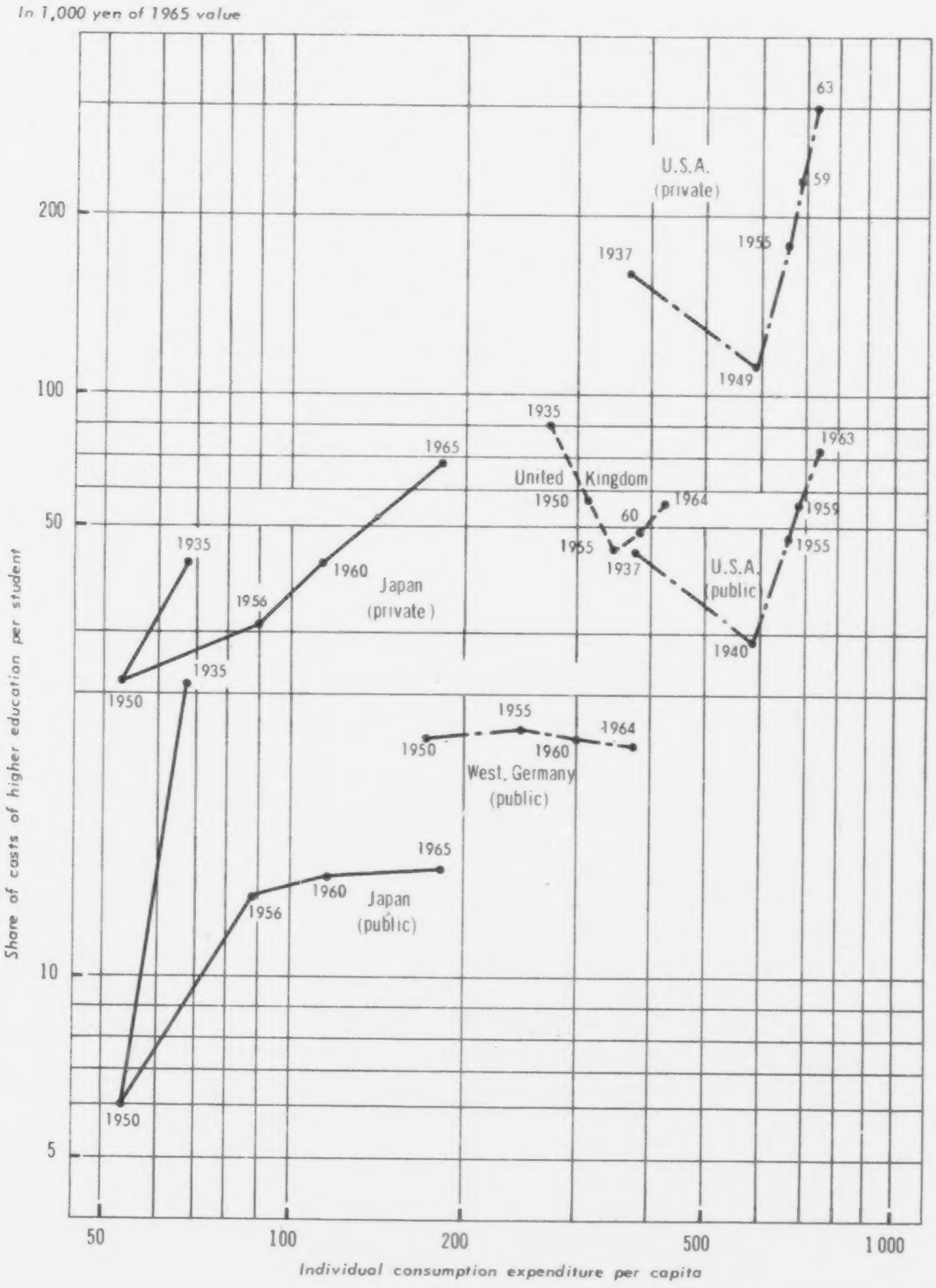
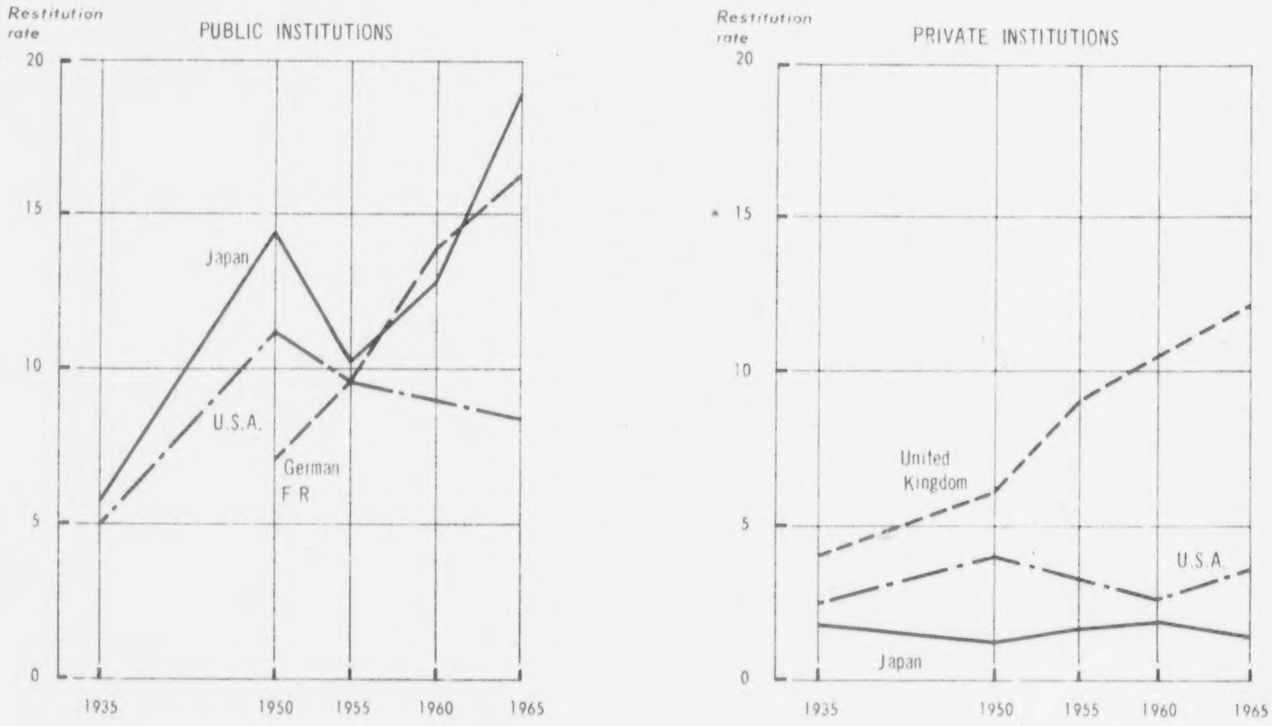


Figure III.B.9

AN INTERNATIONAL COMPARISON OF THE RESTITUTION RATE OF EDUCATIONAL SERVICES TO PRIVATE INVESTMENT IN HIGHER EDUCATION



Note : «Restitution rate» means the ratio of total recurrent expenditure on education to total income from students' contributions such as tuition fees, etc. in public and private institutions of higher education.

IV. Trends in the Unit Costs of Education

1. The unit costs of courses in upper secondary schools

The unit costs (cost of education per student) of courses in both public and private upper secondary schools are compared below. The costs are high for engineering and agricultural courses in particular in public schools, and the costs of other courses are much the same. In the private schools, the unit costs are about one-half of those in the public schools with the exception of agricultural courses where the costs are high.

2. The unit costs of courses in higher education

In the private universities it is possible to break down recent unit costs by courses. In the State universities, however, this is more difficult. Even so, examples from certain fields of study suggest that there are substantial differences between the unit costs of education in State education and those in private education.

V. A Discussion of Possible Improvements

The changes in the financing of education, both in Japan since the Meiji Era, and in other countries over the past thirty years, suggest that the importance of the students' share of educational costs will continue to decrease, and that of the public sector will continue to rise. An examination should, therefore, be made of the just extent to which students should bear the costs of their education. More realistic investments in education should also be considered.

Some prefectures are poorer than others, have fewer upper secondary private schools, and have to rely heavily on public finance for secondary education. Since most people now regard upper secondary education as a necessity for their children, the Government's part in financing such education needs further examination.

The "educational restitution rate" is lower for private than for public schools and the gap between the two types of schools is widening. Though students' contributions to the costs of education have risen, in proportion with the rising consumption level, the restitution rate has not been improved. At the same time, private institutions have fallen more heavily into debt. In this instance Japan compares unfavourably with other countries and the Government needs to re-examine its policy of financial support for private institutions.

C. A BALANCED DISTRIBUTION OF EDUCATIONAL EXPENDITURE

I. Changes in the Distribution of Expenditure on Education

1. The relationship between capital expenditure and recurrent expenditure

A review of this relationship reveals that:

a) In pre-primary education: in the first decade of this century, when the number of live births increased noticeably, the proportion of public school expenditure accounted for by capital expenditure rose from 30 per cent to 40 per cent. The same thing happened in the private schools after the Second World War.

b) In primary education: in the Meiji Era a considerable effort was made to expand compulsory education. There were great fluctuations in capital expenditure on education but, since then, the ratio of capital expenditure:recurrent expenditure has been held at 20:80.

c) In pre-war semi-secondary education: the proportion of capital expenditure was high during the Meiji Era, but since then has rested at a lower level at about 10 per cent. After the war capital expenditure did rise until 1953, however, when the new lower-secondary schools were introduced and it rose again from 1959 to 1962 during the "baby boom".

d) In pre-war secondary education: the proportion of capital expenditure increased sharply, in 1900, 1910 and 1920, when secondary education was expanded; after the war a similar increase was attributable to the expansion of private secondary schools. A temporary rise in capital expenditure also occurred in the public schools after 1962 due to a sharp increase in the numbers of children of secondary school age.

e) In higher education: capital expenditure increased between 1900 and 1920 when the State institutions were expanded. After World War II it rose again, reaching a peak of nearly 40 per cent after 1961 when both public and private establishments were being expanded.

2. The distribution of recurrent expenditure

Although slight fluctuations have occurred, recurrent expenditure has been divided in fairly constant proportions between teachers' salaries and the maintenance of personnel and of equipment. It is worth pointing out that only in higher education has recurrent expenditure shown a rapid increase in recent years.

3. The distribution of capital expenditure

Because of variations in prices, the amount of capital expenditure in education devoted to building and land, and the amount to equipment changes from time to time. Generally speaking, it is expenditure on building and land (on "facilities") that now receives greatest emphasis.

4. Capital expenditure on education and changes in the numbers of pupils

Changes in capital expenditure on education may depend on such factors as:

a) an increase or decrease in the number of pupils,

b) improvement and repair of existing facilities,

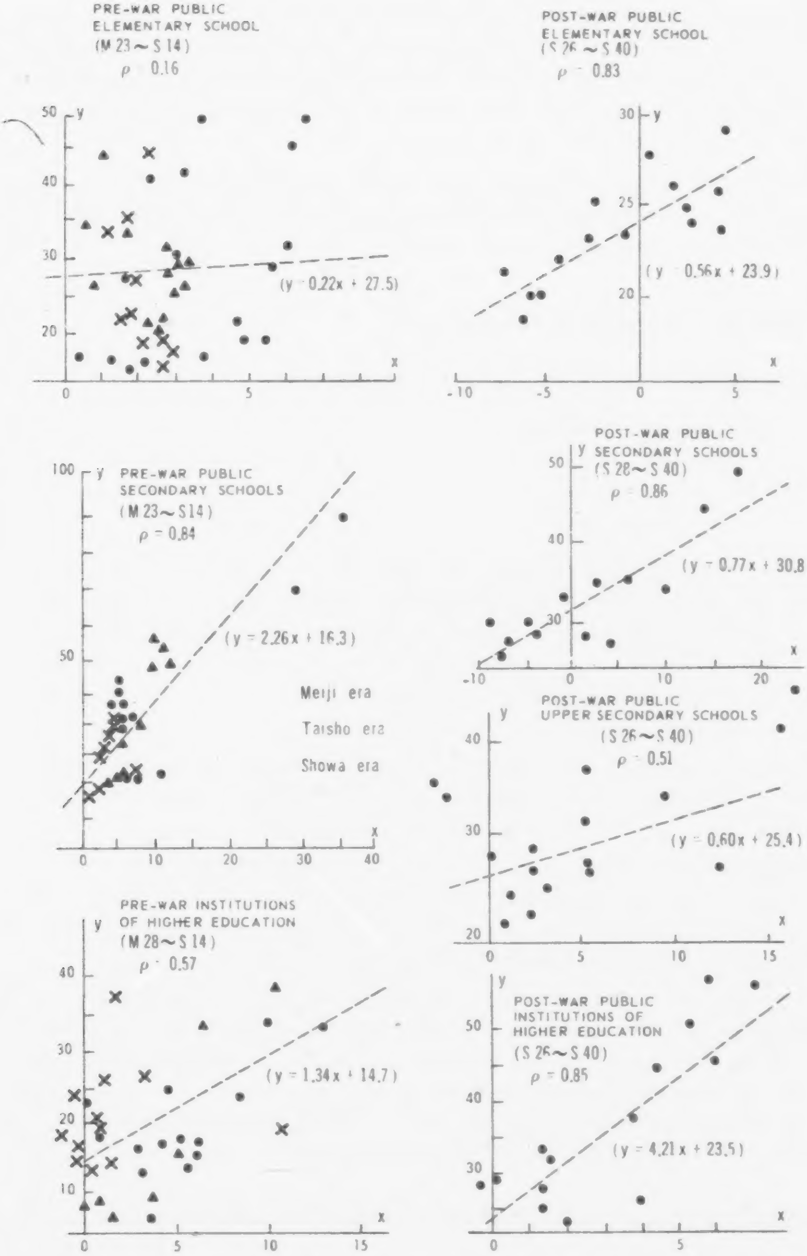
c) improvement in the standards of the material, educational environment, etc.

If we regard (a) as a temporary factor, and (b) and (c) as involving more long-term expenditure, we can then point out the following trends (Figure III.C.1):

a) In pre-war public primary schools, there was little relationship between the rate of increase of the numbers of pupils and the ratio of capital expenditure on education to recurrent expenditures. An expansion of facilities in a given year did not result from an increase in the number of pupils in that same year. Though in pre-war public institutions of higher learning and in post-war public upper-secondary schools

Figure III.C.1

AN ANALYSIS OF CAPITAL EXPENDITURE AT DIFFERENT LEVELS OF EDUCATION



Note: (x) shows increase rates (%) in the number of students, while (y) shows the ratios (%) of capital educational expenditure to recurrent educational expenditure.

the rate of increase of the numbers of students was again not closely related to this ratio, it could nevertheless still be held that in other cases an increase or decrease in the number of pupils would directly effect changes in capital expenditure on education.

b) Cases where changes in pupil numbers have influenced capital expenditure are to be found in public higher education during the post-war years and in pre-war public secondary and higher education. Capital intensive expenditure was visible in these instances. Looking in general at the pre- and post-war years, one finds a continuous growth in capital expenditure on primary and higher education, but not on upper secondary education after the war.

c) If, disregarding changes in pupil numbers, we examine the ratio of capital expenditure on education to recurrent expenditure, we find that the post-war figures for all levels of education are around 25-30 per cent.

II. Changes in Recurrent Expenditure Per Pupil

1. Unit recurrent expenditure at each educational level

If we compare the changing recurrent expenditure on education per pupil (to be referred to as "unit recurrent expenditure") at different levels of school education, the following features can be pointed out. (The amounts are given in terms of 1965 values.) (See Figure III.C.2(1)).

a) In the case of the public schools, the unit recurrent expenditure on higher and secondary education did not change much for some 50 years, from the Meiji Era, that is, up to 1935. The figure for higher education rested between 100,000 and 200,000 yen, and for secondary education between 25,000 and 35,000 yen. Unit recurrent expenditure recovered its pre-war level in both secondary and higher education by 1955 and since then has been rising.

b) Unit recurrent expenditure at primary and pre-primary levels grew from the Meiji Era up to the Second World War. After the war, it quickly recovered and has, since then, risen steadily.

c) At the semi-secondary level, unit recurrent expenditure actually fell, from the latter part of the Meiji Era till just before the war. After the war semi-secondary education was reorganised and integrated into lower secondary education and since then expenditure on it has increased steadily.

d) During the past seventy years, unit recurrent expenditure on primary education has increased seventeen fold, whilst that for secondary and higher education has only doubled, e.g. during the mid-Meiji period 10 times as much was spent on secondary pupils and 60 times as much on university students as was spent on primary pupils, but these figures had fallen by 1935 to 3.5 times and 24 times as much respectively, and again by 1965 1.2 times and 7 times respectively.

2. The relationship between unit recurrent expenditure and the number of students

Figure III.C.2(2) shows that changes in the numbers of school children at each school level explain variations in unit recurrent expenditure:

Figure III.C.2(1)

CURRENT UNIT EXPENDITURE FOR DIFFERENT LEVELS OF EDUCATION

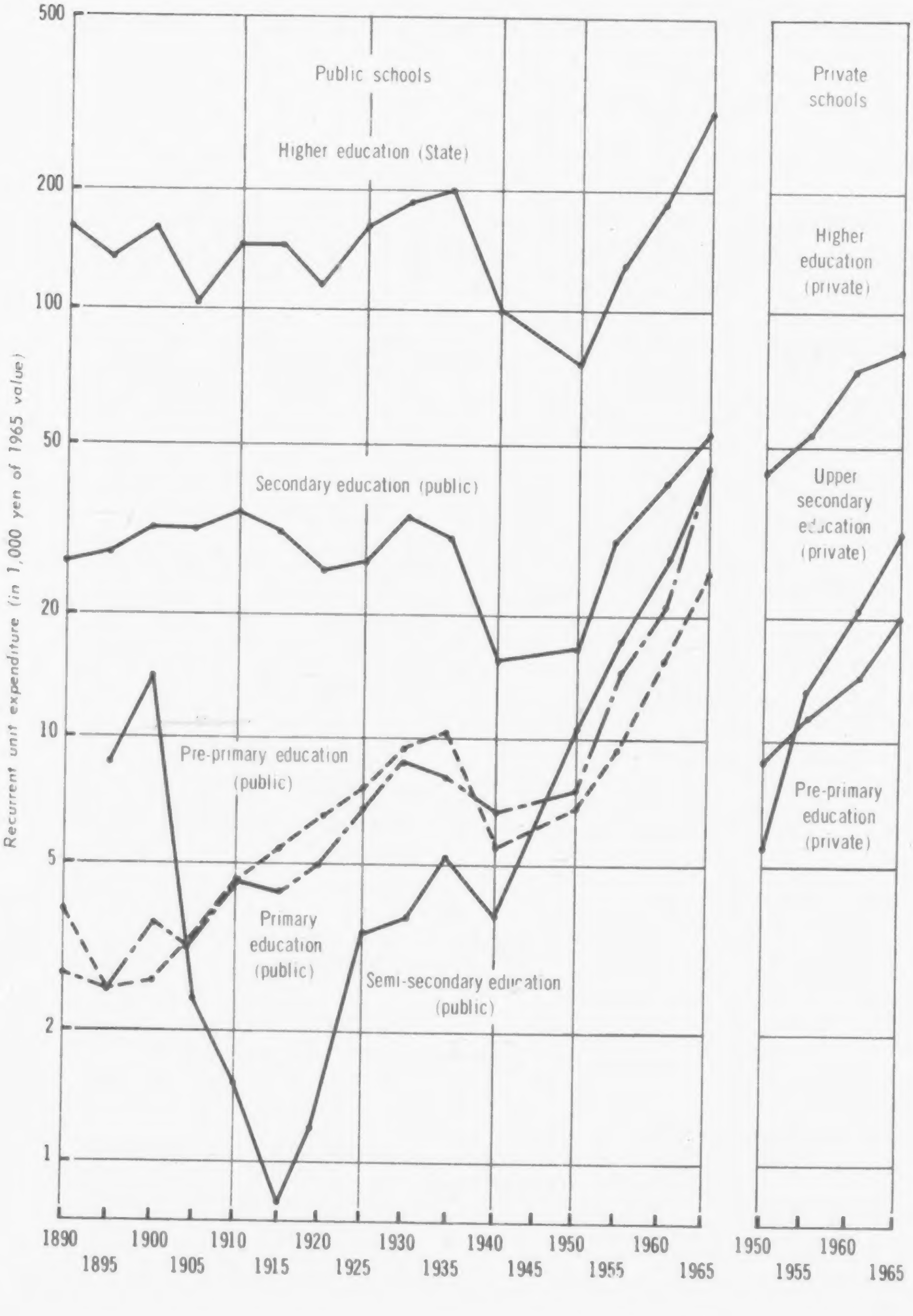
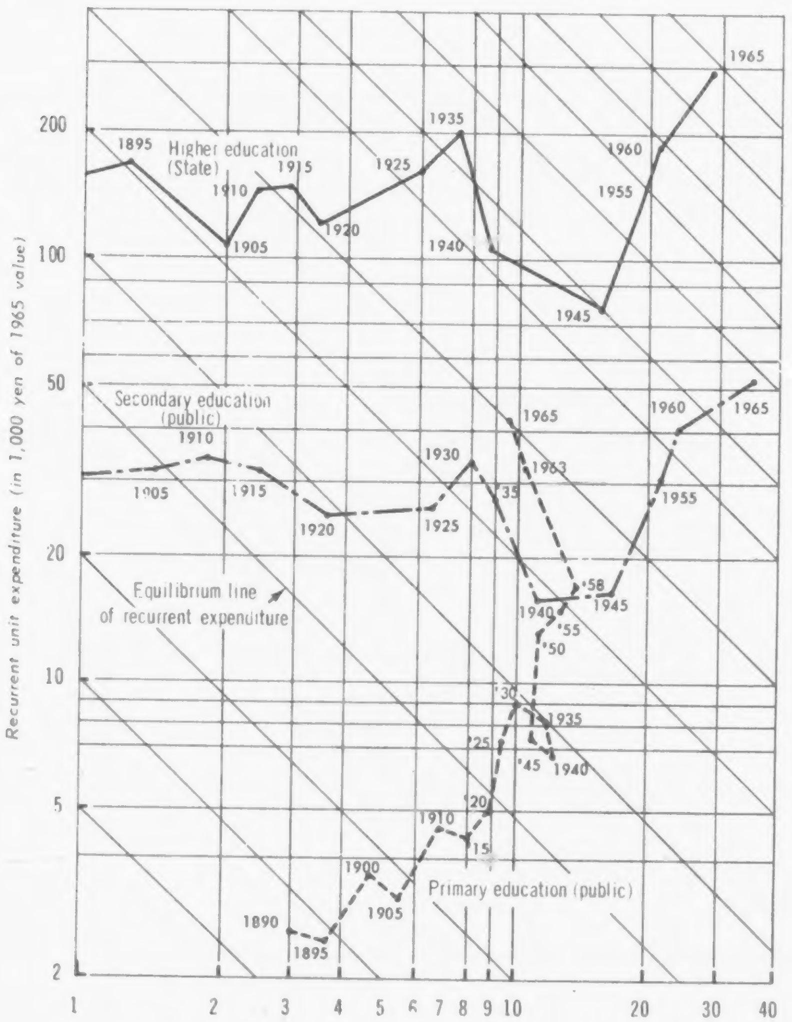


Figure III.C.2(2)

THE RELATIONSHIP BETWEEN CURRENT UNIT EXPENDITURE AND THE NUMBERS OF STUDENTS IN DIFFERENT KINDS OF EDUCATION



Number of students

(*Unit*: ten thousands for higher education, hundred thousands for secondary education, millions for primary education)

Figure III C 3

THE RELATIONSHIP BETWEEN THE AVERAGE SALARIES OF TEACHERS AND INDIVIDUAL CONSUMPTION EXPENDITURE PER CAPITA

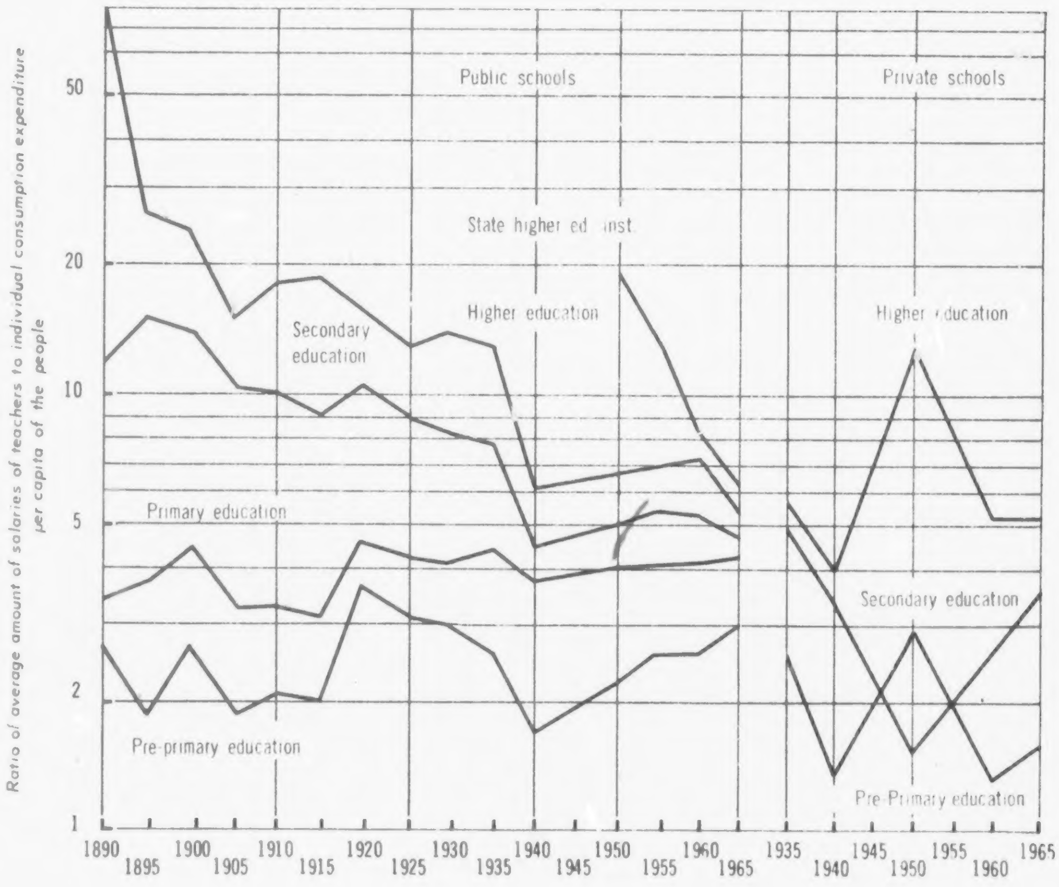
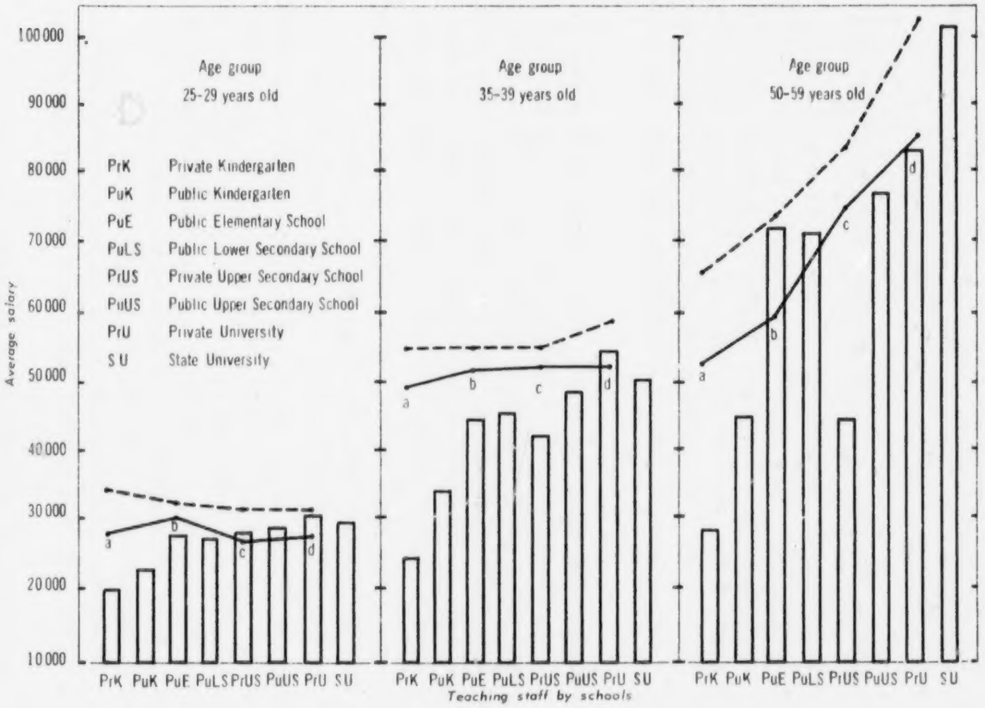


Figure III.C.4

A COMPARISON OF AVERAGE MONTHLY SALARIES BETWEEN TEACHERS AND PRIVATE EMPLOYEES, 1965



Notes: 1. Private Employees Schooling and the size of firms: - - - - = Graduates from universities

——— = Size of firms: a: 20 - 29 (employees)
b: 100 - 499
c: 500 - 999
d: 1,000

2. Definition of salary: Private employee: Average monthly fixed Salary (discounting over-time)
Teacher: Average monthly fixed Salary

b) Between 35 and 39, the gap between teachers' salaries and other comparable salaries widens, teachers being paid 10 per cent less at the university level than their counterparts in private enterprise and teachers at the lower school levels receiving 20 per cent less.

c) Between 50 and 59, teachers' salaries in primary, lower-secondary and upper-secondary schools compare fairly favourably with salaries paid in medium-scale enterprise. Salaries of university teachers compare well with those of large-scale private enterprise. Teachers in private high schools and in all types of kindergartens are paid far less than their equals in private enterprise.

3. Changes in the salary level of teachers and the pupil-teacher ratio

Raising the salary level of teachers may in itself be desirable but, if education is to be improved qualitatively, it is also necessary to improve the pupil-teacher ratio. The per pupil cost of teachers' salaries, which accounts for the greatest proportion of unit recurrent costs, is a product of the teacher's average salary and the teacher-pupil ratio. The level of teachers' salaries and the teacher-pupil ratio are therefore competitive with each other. If we examine the changes in their relationships, the following facts emerge: (See Figure III.C.5).

a) In public primary schools, the salary level was maintained from the early Meiji years until immediately before the Second World War, but any improvement in the teacher-pupil ratio was negligible. Although this ratio was considerably improved after the war, the rise in salary level was also rapid. Consequently really significant improvements in the ratio only occurred after 1960. In the public lower-secondary schools similar improvement also occurred after the war.

b) In upper-secondary schools, the number of pupils increased sharply reaching a peak in 1965, and efforts were made in both public and private schools to maintain the teachers' salary level whilst holding the teacher-pupil ratio constant.

c) In universities, state, local public and private alike, the post-war years have seen a considerable increase in the pupil-teacher ratio so, since 1960, the cost of teachers' salaries per pupil has tended to level off. While the teacher-pupil ratio has deteriorated, teachers' salary levels have remained unchanged. Only in private universities have teachers' salary levels risen, overtaking those of the state and local public universities. The trend of pre-war public normal schools, once part of the secondary school system (Figure III.C.5) was, from the middle of the Meiji Era, towards a fairly high salary level and a good teacher-pupil ratio.

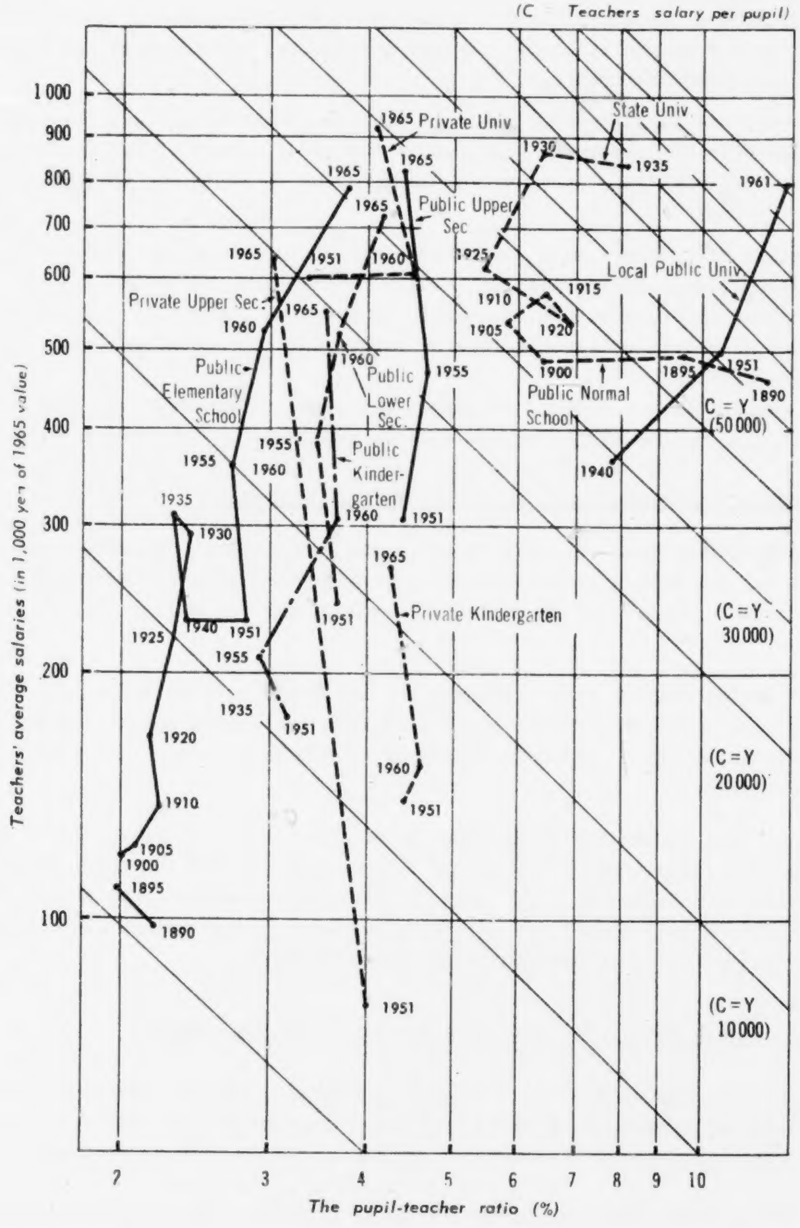
4. Regional differences in expenditure on teachers' salaries

There are considerable regional differences in the cost of education per pupil in public primary and lower-secondary schools. Some pupil costs are 1.7 times higher than the lowest costs in primary schools and are 1.6 times higher than the lowest costs in lower-secondary schools. More than 60 per cent of the cost of education is accounted for by the cost of teachers' salaries, the cost of which per pupil varies considerably from one prefecture to another.

The cost of teachers' salaries per pupil is a function of the teachers' average salary multiplied by the pupil-teacher ratio. If we examine the relationship between the average salary of teachers and their average age, and also the relationship between the pupil-teacher

Figure III. C.5

TEACHERS' AVERAGE SALARIES AND THE PUPIL-TEACHER RATIO



ratio and the ratio of small schools to all schools in an area, the following facts emerge, with similar trends noticeable for primary and secondary schools (Figure III.C.6(1) and (2)). (Small schools are those which, at the primary level have less than five classes and, at the secondary level, less than two.)

a) Tokyo and Kyoto are prefectures where the high cost of teachers' salaries per pupil is mainly due to the average salary level of the teachers, whereas Kochi and Shimane are those where the pupil-teacher ratio is the crucial factor. On the other hand, the low cost of teachers' salaries per pupil is, in Nagasaki, Ishikawa and Kagoshima, primarily due to the teachers' low average salary, but in Aichi and Kanagawa due to a high pupil-teacher ratio.

b) As a rule, the pupil-teacher ratio is poor in prefectures where the teachers' average salary is comparatively high, as in the major cities of Tokyo, Kanagawa, Osaka, Aichi and Fukuoka and, in contrast, is good, as in Ishikawa, where the average salary is low.

c) Generally, also, there is a connection between the teachers' average salary and their average age, and between the pupil-teacher ratio and the ratio of small schools to all schools in a prefecture, though in prefectures like Osaka, Hokkaido and Ishikawa the average salary of teachers has no particular correspondence with the teachers' average age.
It is clear that the cost of education per pupil varies with the size of school. The cost is, logically, higher in the smaller schools.

5. The costs of teachers' salaries in different countries

A comparison between countries of, firstly, the relationship between teachers' average salary and national per capita income and of, secondly, the ratio of the cost of teachers' salaries to recurrent expenditure on education revealed the following: (See Figure III.C.7(1) and (2))

a) In the United States, United Kingdom and Japan the average salary of teachers in primary and secondary schools is in line with per capita income. In Japan, however, the average salary of teachers in higher education is lower than that of the other two countries.

b) In Japan, the United States and the German Federal Republic, teachers' salaries take up similar proportions of total maintenance expenditure. In higher education, this ratio was once higher in Japan than in the other countries, but now it is falling rapidly. This can scarcely be welcomed, however, as the salary level of teachers in higher education is at present quite unsatisfactory.

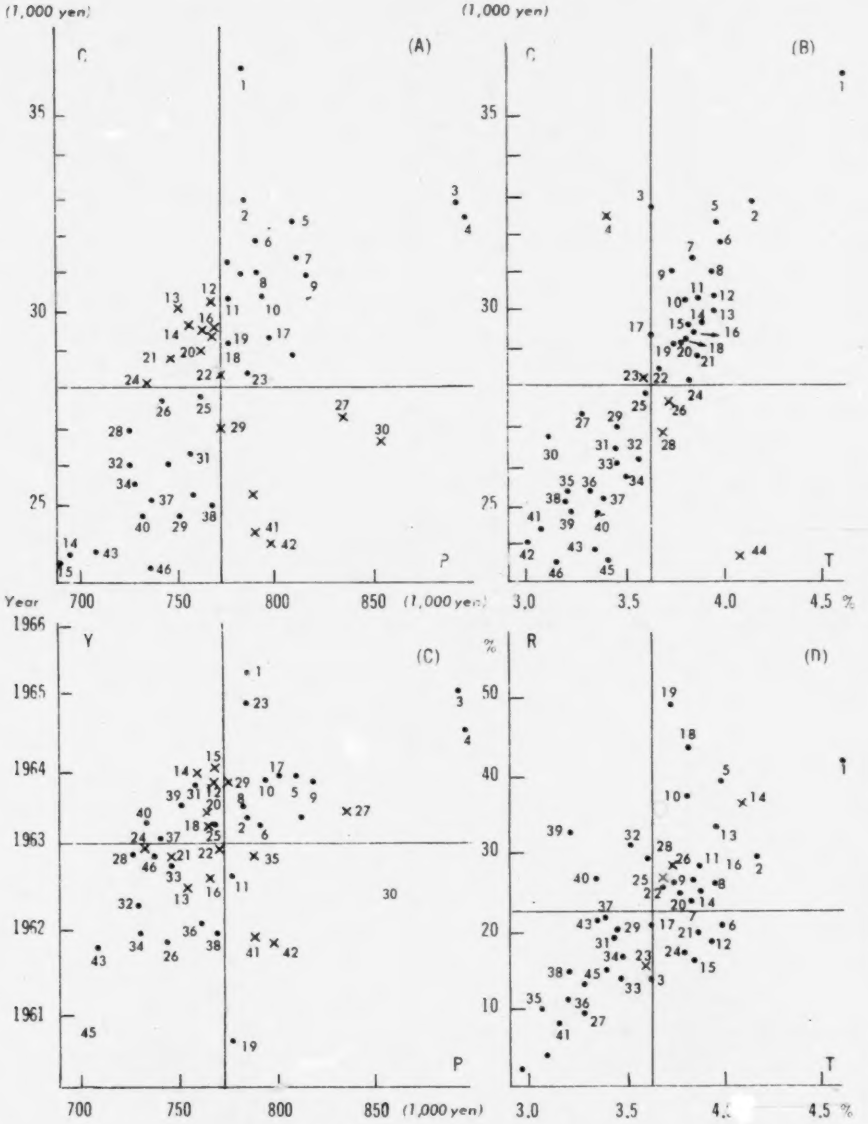
IV. Problems Revealed by the Above Analysis and Possible Improvements

1. All levels of school education and, in particular, higher education, have recently become more capital-intensive. This means that any future plans for expansion must tackle the problems of effective educational investment and must look well ahead to possible technical innovations.

2. Teachers' salary levels are generally unsatisfactory; in upper-secondary schools and in higher education they have, of late, been declining in terms of the level of national

Figure III. C.6(1)

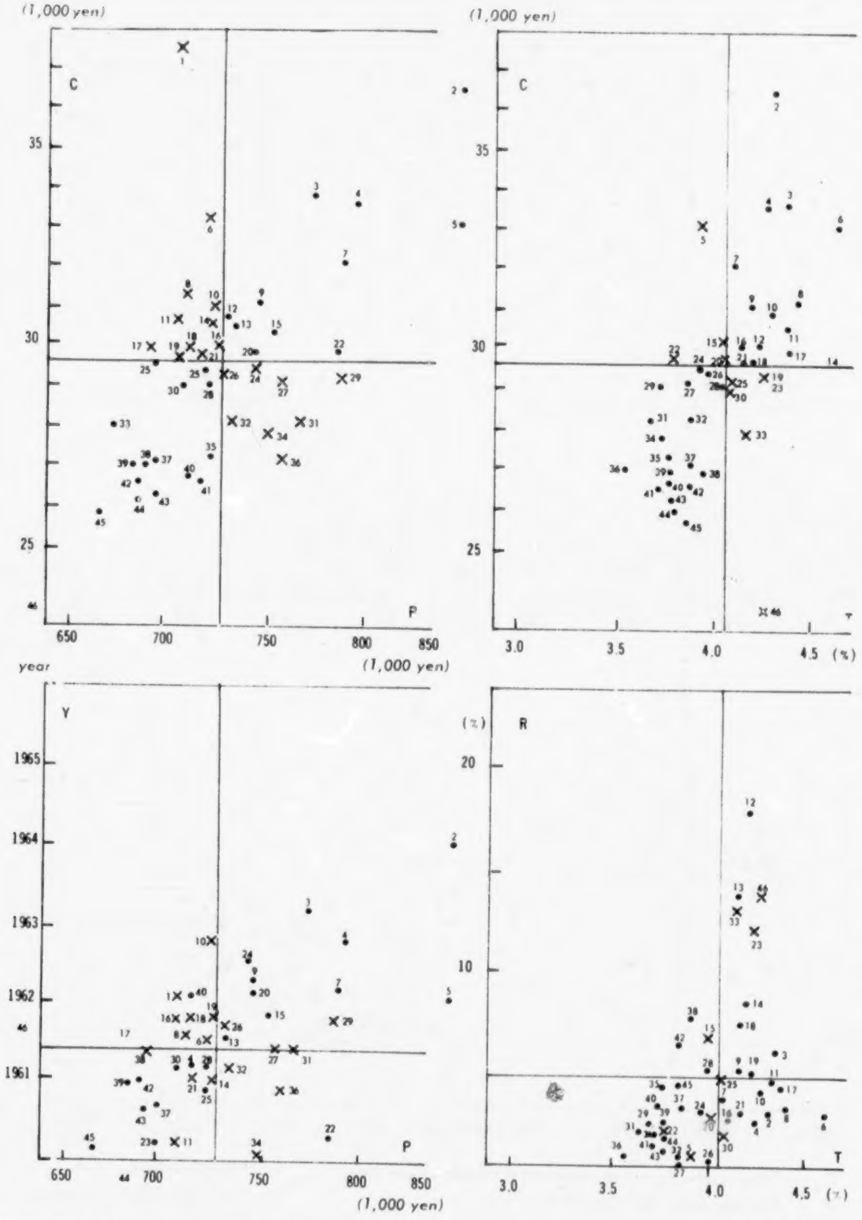
DIFFERENCES IN TEACHERS' SALARIES BY PREFECTURE
(ELEMENTARY SCHOOL)



Note : C = Total expenditure for salaries of teachers per pupil T = Pupil-teacher ratio
P = Average salaries of teachers Y = Average age of teachers
R = Ratio of the number of small size schools to total number of schools
The numbers in the figures show the rank order of prefectures on the basis of the average salaries of teachers in respective prefectures.

Figure III. C.6(2)

DIFFERENCES IN TEACHERS' SALARIES BY PREFECTURE
(LOWER SECONDARY EDUCATION)

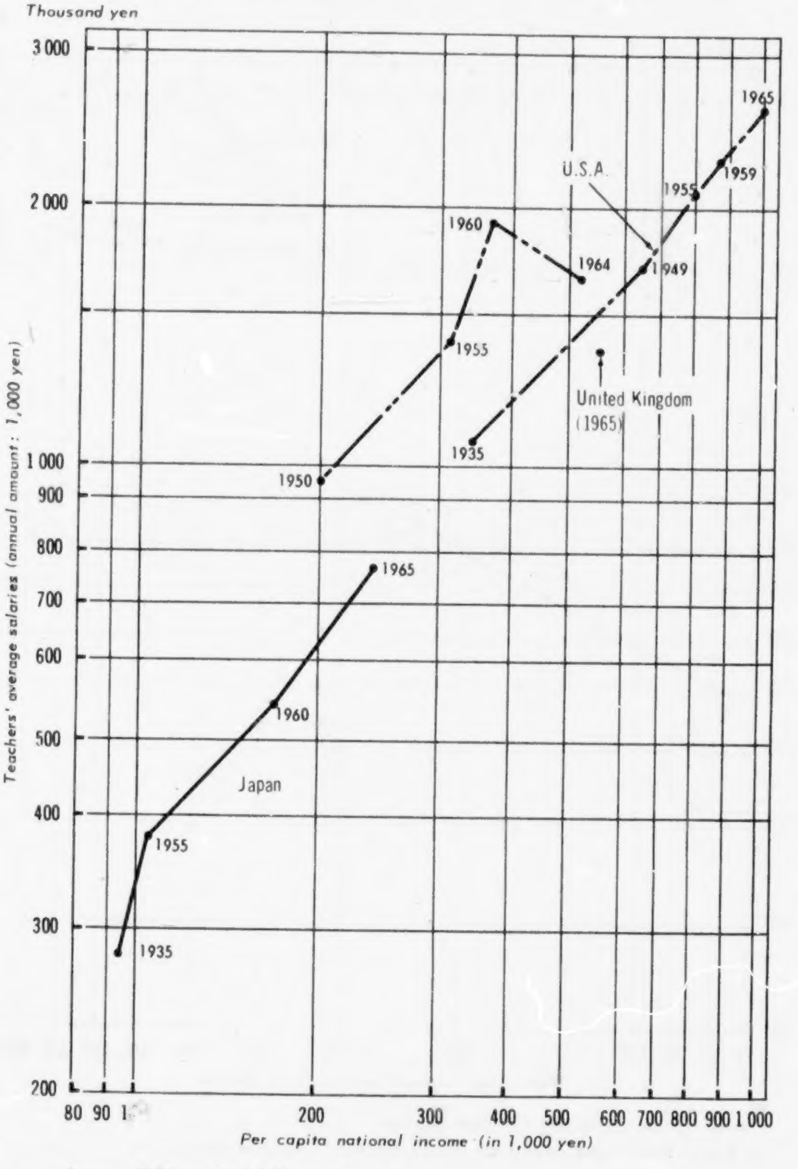


Note : C = Total expenditure for salaries of teachers per pupil
P = Average salaries of teachers
R = Ratio of the number of small size schools to total number of schools.
T = Pupil-teacher ratio
Y = Average age of teachers

The numbers in the figures show the rank order of prefectures on the basis of the average salaries of teachers in respective prefectures.

Figure III. C.7(1)

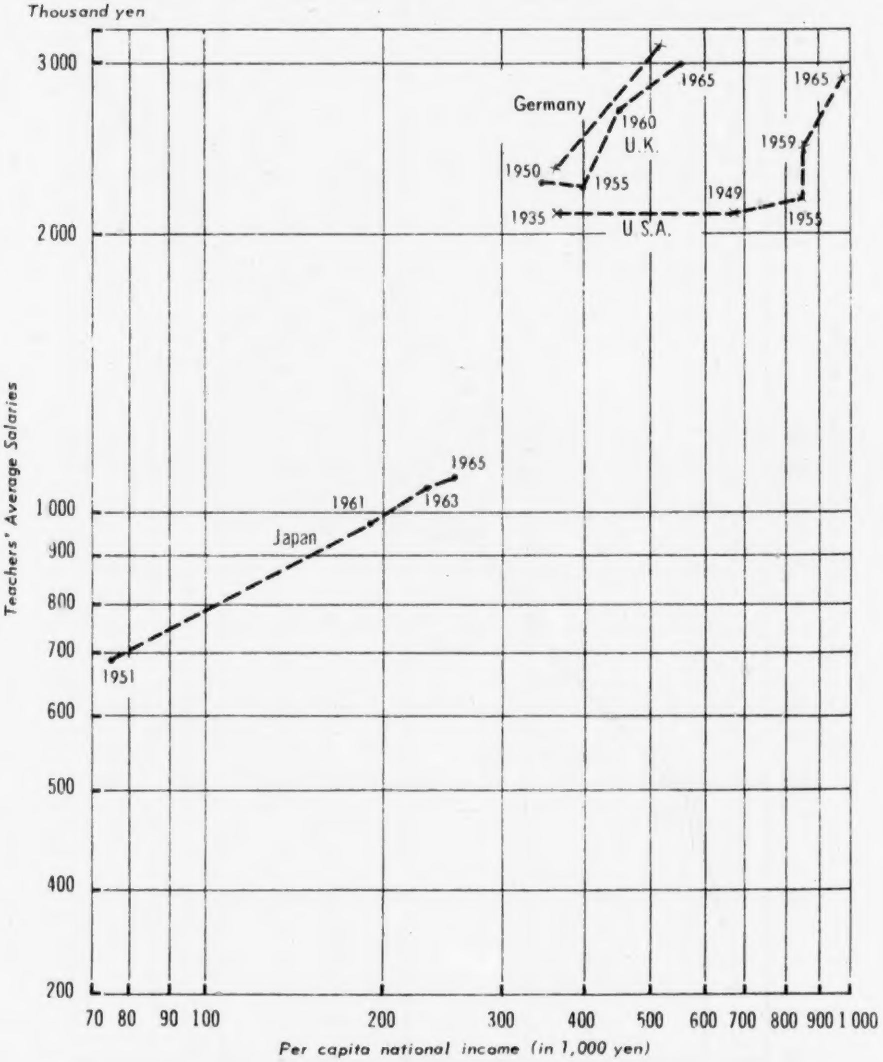
TEACHERS' AVERAGE SALARIES AND PER CAPITA NATIONAL INCOME
(PRIMARY AND SECONDARY EDUCATION)



Japan : Public school full-time teachers
U.S.A. : Public school teachers
United Kingdom : Maintained school qualified teachers
Germany : Public school teachers.

Figure III. C.7(2)

TEACHERS' AVERAGE SALARIES AND PER CAPITA NATIONAL INCOME (HIGHER EDUCATION)



Japan : State university full-time teachers
U.S.A. : Public and private university teachers (above lecturers)
United Kingdom : University teachers
Germany : State university personnel.

consumption and, in higher education particularly, the level is well below that of other countries; they also compare badly with the salaries offered to similar people in private enterprise, being particularly low for people in their thirties. The question of salary levels underlies the recruitment of adequate teachers and directly affects the future costs of education, so it must be studied very carefully.

3. The cost of teachers' salaries per pupil in each prefecture is closely related to the average age of teachers, the number of small schools in the prefecture, and to local and more specific circumstances, and a high salary cost per pupil is not necessarily a sign of good educational conditions. Regions in which there are more small schools than average generally have inadequate financial resources and offer teachers a low average salary. All these are factors which must be borne in mind when working out measures for narrowing the differences between localities.

D. THE ECONOMIC AND CULTURAL EFFECTS OF INVESTMENT IN EDUCATION

We had hoped to examine, under this title, the general impact of investment in education on the economic and cultural structure of society, believing that such investment must stimulate and elevate all man's best qualities. The present stage of our study does not allow us to submit conclusive evidence of this conviction, but it still enables us to point to several relevant factors which are worthy of further consideration. We are of the opinion that an enquiry into the significance of investment in education would provide the basis on which future plans for the nation's education might be developed.

I. An Attempt to Analyse "Investment in People"

1. What is meant by "the amount invested in a person"?

No quantitative index can accurately measure the value of education. We can, however, measure its social value, in rough fashion, in terms of total educational expenditure. This makes sense if we assume that the cost of education per student indicates the quality of education received.

In order to assess the present effectiveness of investment in education we must impose a time limit on our study and consider only the working lives of those people in whom investment has been made.

The amount invested in a person can be computed by looking at the cost of a person's education and the duration of its effectiveness. When investment affects the way people are actually employed we can talk about "investment in gainfully-employed personnel".

These concepts help us grasp the generalised social effects of education, but they also present certain problems. In using them, one has to assume (a) that the cost of a student's education is indicative of the quality of that education and (b) that fluctuations, over time, in the levels of ability of educated people, can be neglected.

2. An attempt to calculate the present amount invested in people

An attempt was made to estimate the total sum invested in educated people from the Meiji period up to the present time. The previously mentioned "time-limit" was employed and the amount invested in the gainfully-employed population was calculated.

a) In 1965 the amount invested in educated people rested at 18,000 billion yen, 44 times that of 1935 and 32 times that of 1905. The amount invested in people currently employed was 13,000 billion yen, an amount which showed equivalent increases on past levels.

b) In the breakdown of investment by primary, secondary and higher school levels, the following ratios were obtained:

- for 1905, 74 : 17 : 9
- for 1935, 65 : 22 : 13
- for 1965, 45 : 41 : 14

Thus investment at the primary level gave way to an increased emphasis on investment in secondary education, an emphasis found to be repeated in the present investment in the working population.

II. The Economic Impact of Investment in Education

1. The economic benefit rate

One way to assess the economic effects of investment in education is to measure future benefits the student might expect to receive when his education is complete. This involves assuming that the investment in a student - which may be calculated as the sum of the cost of his education plus the income he lost whilst being educated - contributes directly to the higher level of income that he eventually obtains. To put it differently, a high level of income in later life has, in this case, to be seen as the long-term recovery of investment capital.

This is a method for calculating the personal profitability of education. If, however, one sees the growth of personal income as also a contribution to society's productivity, this method can be used to measure to what extent investment in education benefits society as a whole.

Some calculations were made on this basis, but they enabled no definite conclusions to be drawn. Difficulties presented themselves such as:

a) Lack of information for different periods on the incomes of the working population by age and educational preparation.

b) Lack of information on factors such as natural personal ability, family wealth and status, etc., which might account for individual lifetime income differentials as well as educational preparation.

However, assuming an arbitrary rate of 0.2 for the factors included under (b) the investment in upper-secondary and higher education was estimated at 770,000 yen and 1,930,000 yen respectively, and a yield of 6 per cent was calculated.

2. The contribution of education to economic growth

A second way of assessing the economic impact of investment in education would be to measure the contribution made to the growth of national income by the educated and gainfully-employed population. One would regard large numbers of educated people as an investment and distinguish them from other factors involved in economic growth like capital equipment or the labour force in general. The problem here is that one cannot measure exactly the economic benefits brought about by the educated workers and so one can only offer tentative conclusions as to their total impact. The estimate which was finally reached suggested that between 1930 and 1965 the yield from investment in education was 6 per cent.

To develop this further it would be necessary to analyze the correlation between growth in labour-productivity and the levels of education attained by the working population. A production function would have to be constructed, involving other factors also as, for example, changes in the ratio of equipment to workers. To do this, however, further research is required.

III. The Cultural Effects of Investment in Education

The significance of the impact on culture

Whilst it is widely accepted that investment in education affects the economic structure of society, it's cultural effects are not always recognised. Education, in its encouragement of the intellectual, physical and moral development of man, must nevertheless have an observable and quantifiable effect on social and cultural phenomena.

There have in this instance been certain difficulties, in collecting data for a period of any length:

a) Indications of cultural change are usually detected in improvements in the standard of living, in the modernisation and rationalisation of society and in the growth of a people's cultural activities. To understand completely the impact of education on culture involves, however, more than this. One also needs to know whether education effects changes in the values and morals to which a people adhere. Up until now research has been unable to provide us with any accurate way of defining or assessing such changes.

b) If any way of measuring changes in value-orientation were found, it might still be impossible to tell whether these changes were prompted by educational or economic factors.

It may be concluded, therefore, that more detailed investigations, offering a solution to problems such as these, are required in the future.

APPENDICES

I

TERMS OF REFERENCE OF THE CENTRAL COUNCIL FOR EDUCATION

MINUTES OF CONSULTATION

To: The Central Council for Education

The following subject is herewith referred to you for examination.

"Fundamental policies and measures for the future expansion and development of school education."

Toshihiro Kennoki
Minister of Education

3rd July, 1967

(Appended)

Reasons for Consultation

During the past century this country has made remarkable progress in school education and, in its diversification of education, already ranks highly among the major countries of the world. Education has played an important role in the growth and development of this country into a modern State.

Twenty years have passed, however, since the introduction of the basic reforms in education after World War II. There are many problems to be solved in the present structure and content of education provided in schools and universities and an extensive re-examination of the situation is badly needed.

Furthermore, it is anticipated that the rapid progress of technological innovation and the growing complexity of society will themselves produce problems of a new variety.

In view of this situation, it is necessary to re-examine the past achievements of education in this country, to identify problems to be solved and to formulate appropriate policies and measures for their solution. It is also necessary to examine long-term policies and measures for the overall expansion and development of education in order to be prepared for the socio-economic developments of the future.

Items for Deliberation

An examination is suggested of the whole educational system, but with attention paid, in particular, to the following:

1. Special and national demand for education and equal opportunities for education.
2. The development of an educational system adapted to all aspects of intellectual and psychological growth.
3. The effective and fair distribution of educational expenditure.

II

LETTER OF THE CHAIRMAN OF THE COUNCIL TO THE MINISTER OF EDUCATION

30th June, 1969

To: Michita Sakata,
Minister of Education

From: Tatsuo Morito
Chairman
The Central Council for Education

"On policies and measures for the overall expansion and development of education in the future" (interim report).

This Council was asked by the Minister of Education in July 1967 to consider "policies and measures for the future expansion and development of education". It began by analysing and evaluating the achievements of school education up to the present time and, on the basis of this, identified problems which needed further consideration by the Council. The Council has been carrying out investigations since then and has appointed three ad hoc committees, Sub-committees XXI, XXII and XXIII.

We have now reached some tentative conclusions and I have much pleasure in submitting this interim report of our findings.

III

MEMBERSHIP OF THE CENTRAL COUNCIL FOR EDUCATION

(As of 30th April, 1969)

Dr. Tatsuo Morito, President, Japanese Scholarship Society (Chairman)

Dr. Shunsaku Kawahara, Ex-Chairman, National Commission for Cultural Preservation (Vice-chairman)

Mr. Goro Endo, Principal, Bancho Primary School, Sumida Ward, Tokyo

Dr. Takashi Oizumi, Professor (Ex-President), Sophia University

Dr. Masaaki Kosaka, President, National Education Centre

Mr. Masaru Koda, Ex-Principal, Takata Junior High School, Tokyo

Dr. Issaku Koga, Counsellor, International Telegraph and Telephone Company Limited

Dr. Shohei Takamura, Professor, Keio Gijuku University

Mr. Yoshio Tanaka, Ex-Chairman, Tokyo Metropolitan Board of Education

Mr. Saburo Nishimura, Hakuo Senior High School, Tokyo

Dr. Masunori Hiratsuka, Director, National Institute for Educational Research

Miss Taiko Hirabayashi, writer

Mr. Heigo Fujii, Vice-president, Yawata Iron and Steel Company Limited

Mr. Ryugen Hosokawa, journalist

Mr. Naotsugu Yorozu, President, Nihon-Keizai-Shinbun Company Limited (The Japanese Economic Journal)

IV

COMPOSITION AND TERMS OF REFERENCE OF SUB-COMMITTEES XXI, XXII AND XXIII OF THE CENTRAL COUNCIL FOR EDUCATION

1. Sub-committee XXI

Composition:

12 members

Chairman	Dr. Koga, Counsellor, *Kokusai Denshin Denwa Kabushiki Kaisha* (International Telegraph and Telephone Co.,Ltd.)
Vice-chairman	Dr. Shimizu, Professor, Tokyo University

Terms of reference:

"The adaptability of the educational system to social demand."

a) Social demand for education and the availability of educational opportunities.

b) Social demand for manpower and the supply of graduates from the school system.

c) Social evaluation of education.

d) Educational opportunity and regional, economic and social factors.

2. Sub-committee XXII

Composition:

11 members

Chairman	Dr. Oizumi, (ex-) President, Sophia University
Vice-chairman	Dr. Shumuta, Professor, Chuo University

Terms of reference:

"The internal efficiency of the educational system."

a) The development of the school system and changes in educational principles.

b) Stages of personality development and system of education adapted to the different abilities and aptitudes of individual pupils.

c) Educational conditions and the effectiveness of education.

d) The role of education.

3. Sub-committee XXIII

Composition:

8 members	
Chairman	Dr. Takamura, Professor, Keio University
Vice-chairman	Dr. Hayashi, Professor, Tokyo Institute of Technology, (ex-) Chief, Economic Research Institute, Economic Planning Agency

Terms of reference:

"The efficiency of educational investment."

a) The growth of the national economy and the increase in educational expenditure at different school levels.

b) The distribution of educational expenditure by source.

c) A balanced distribution of expenditure on education.

d) The economic and cultural effectiveness of investment in education.

V

CHRONOLOGICAL ERAS IN JAPAN

Eras in Japan	Christian Era	Eras in Japan	Christian Era	Eras in Japan	Christian Era
Meiji Era 1	1868	Taicho Era 1	1912	Showa Era 1	1926
2	1869	2	1913	2	1927
3	1870	3	1914	3	1928
4	1871	4	1915	4	1929
5	1872	5	1916	5	1930
6	1873	6	1917	6	1931
7	1874	7	1918	7	1932
8	1875	8	1919	8	1933
9	1876	9	1920	9	1934
10	1877	10	1921	10	1935
11	1878	11	1922	11	1936
12	1879	12	1923	12	1937
13	1880	13	1924	13	1938
14	1881	14	1925	14	1939
15	1882	(15)	(1926)	15	1940
16	1883			16	1941
17	1884			17	1942
18	1885			18	1943
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20	1887			20	1945
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25	1892			25	1950
26	1893			26	1951
27	1894			27	1952
28	1895			28	1953
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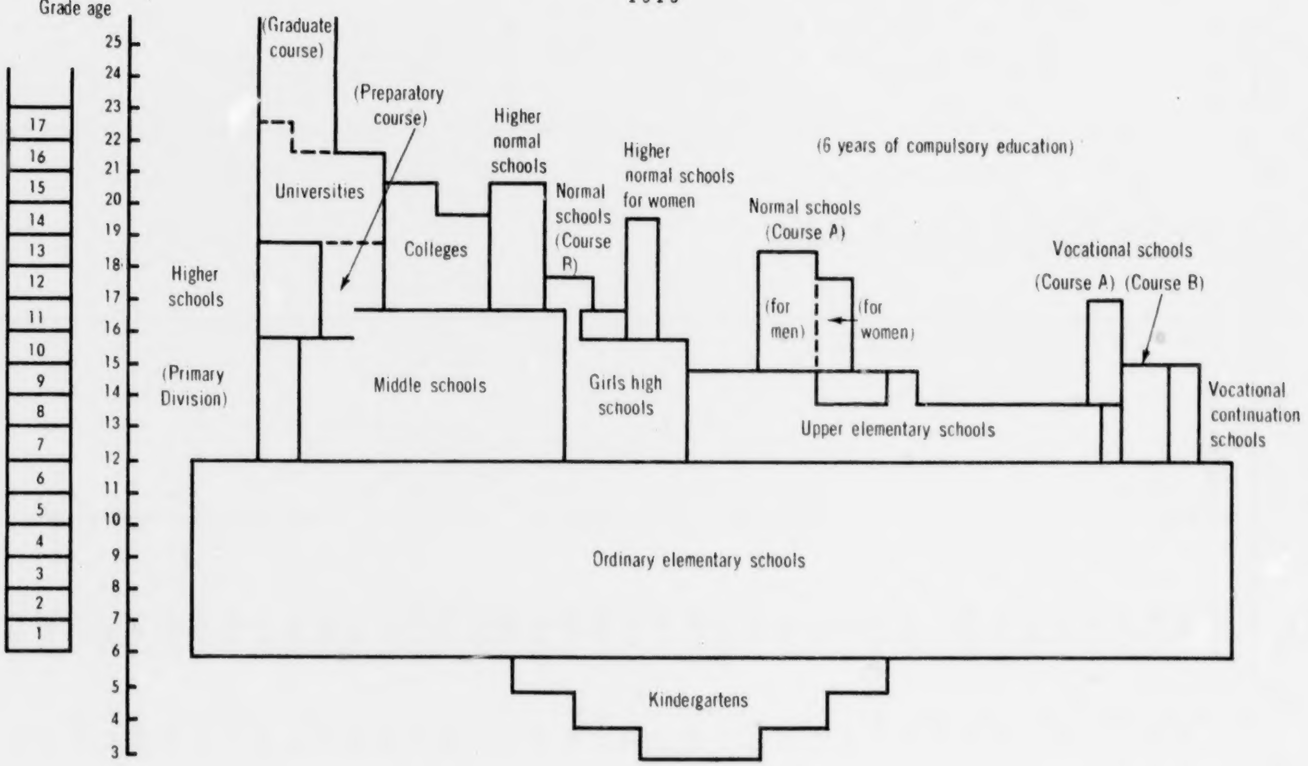
33	1900			33	1958
34	1901			34	1959
35	1902			35	1960
36	1903			36	1961
37	1904			37	1962
38	1905			38	1963
39	1906			39	1964
40	1907			40	1965
41	1908			41	1966
42	1909			42	1967
43	1910			43	1968
44	1911			44	1969
(45)	(1912)			45	1970

VI

THE SCHOOL SYSTEM IN 1919 AND 1964

1919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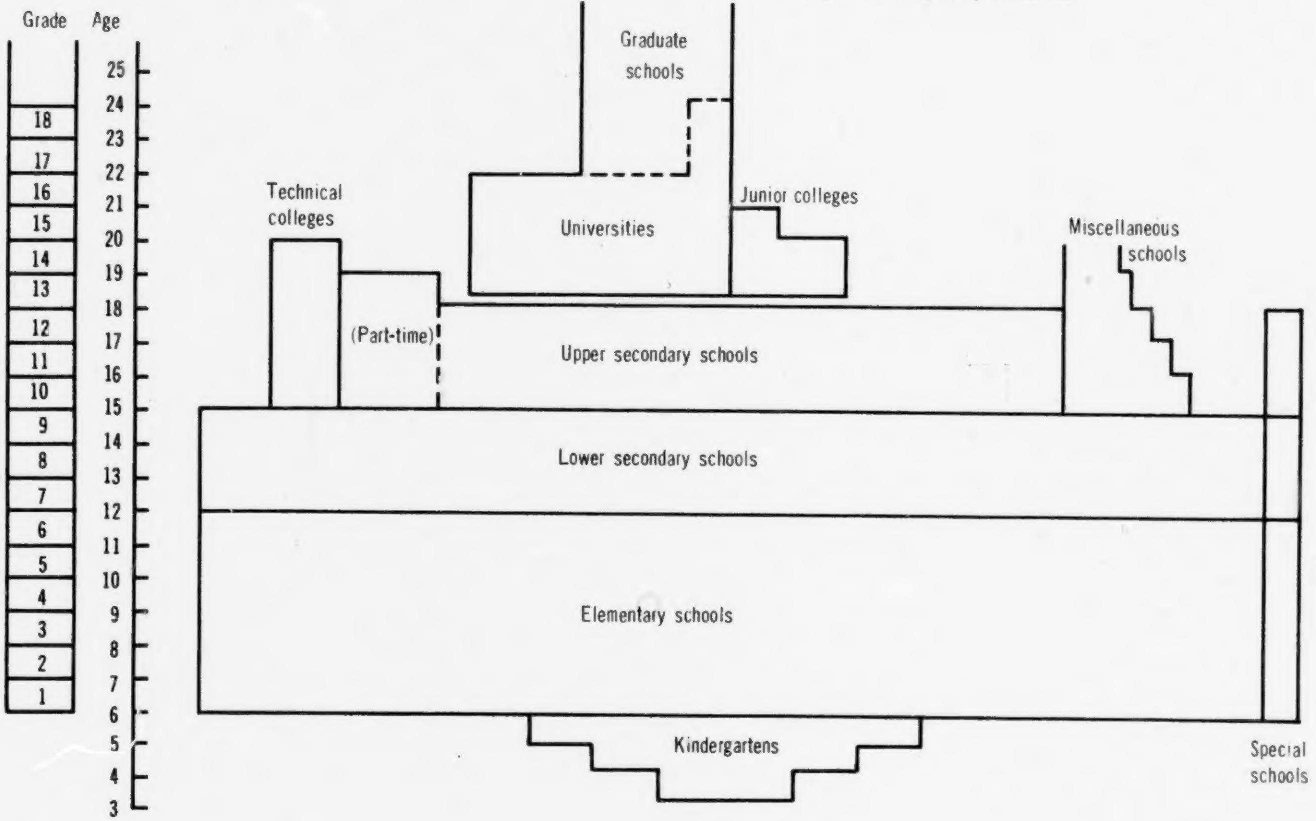
(Graduate course)
(Preparatory course)
Higher normal schools
Higher normal schools for women
(6 years of compulsory education)
Universities
Normal schools (Course B)
Normal schools (Course A)
Colleges
Vocational schools
(Course A) (Course B)
Higher schools
(for men)
(for women)
(Primary Division)
Middle schools
Girls high schools
Upper elementary schools
Vocational continuation schools
Ordinary elementary schools
Kindergartens

VI *(continued)*

1964

(9 years of compulsory education)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Technical colleges
(Part-time)
Graduate schools
Universities
Junior colleges
Upper secondary schools
Miscellaneous schools
Lower secondary schools
Elementary schools
Kindergartens
Special schools

ANNEXES

Annex I

BASIC GUIDELINES FOR THE REFORM OF ELEMENTARY AND SECONDARY EDUCATION

(An Interim Report of the Sub-committee XXV)

Introduction

In response to the enquiry requested by the Minister of Education in July 1967, into "Fundamental policies and measures for the future expansion and development of school education", the Central Council submitted an Interim Report to the Minister in June 1969 1). The conclusions presented in this report were drawn from an analysis and evaluation of the development of education in Japan and of the problems anticipated in the future.

Bearing in mind the problems mentioned in this report, Sub-committee XXV has, since July 1969, been studying plans for the reform of elementary and secondary education and has been examining the future role of school education. Since its inauguration, Sub-committee XXV of the Central Council of Education has held 37 full sessions and its own sub-committees have met on 13 separate occasions. In May 1969, the Sub-committee released its proposals for "The Reform of Elementary and Secondary Education". It invited the representatives of more than 40 organisations, councils and governmental agencies to express their opinions on the proposed changes. Public hearings and discussions were held in Sendai, Tokyo and Hiroshima.

Sub-committee XXV has worked closely with Sub-committee XXVI on those issues relevant to elementary and secondary education and to higher education as well. These Committees have considered different educational structures, the selection of students, teacher training and the type of education most conducive to the development of mature personalities and have held several joint meetings. This interim report indicates the type of reform in elementary and secondary education that, on the basis of the above studies, the Central Council now considers to be most suitable.

The need to reform elementary and secondary education had been previously considered from various angles, but agreement had not been reached on the causes of the problems under consideration or on how best to approach them. As a prerequisite to considering reform, the Council has, therefore, aimed at clarifying these problems and the situations in today's school education in which they arise and its conclusions are to be found in Chapter I, "Central Problems in Elementary and Secondary Education".

After a century of notable effort and development, education in Japan is now substantively equal to that of other countries. If, however, we continue to rely upon traditional practices and do not direct our efforts towards the future in a positive manner, education will not generate new development but will stand in the way of progress. One should not accept that the system of education produced by the post-World War II reforms, and created

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1) An Interim Report on Policies for the Future Expansion and Development of Education in Japan.

under the peculiar circumstances of occupation, is either an ideal system or one to be maintained for ever. Such an acceptance of the status quo conflicts with any conception of the significance of the role that education has to play in social development.

Today we are confronted by an entirely unique set of problems and by the challenge of an era new to mankind. If, however, education is to be of a long-term nature, we must try to comprehend not only problems currently at issue but future problems too, and we must preserve a flexibility of attitude in preparing for reforms which will tackle these problems. Such reforms are outlined in **Chapter II, "Basic Guidelines for the Reform of Elementary and Secondary Education"**.

Careful preparation and study of the issues involved, as well as firm administration and effective financial support, are prerequisites for the reforms outlined in this document. The Council, through Sub-committee XXVII, is studying the precise ways in which the reforms for elementary, secondary and higher education contained in these "Basic Guidelines" may be implemented. Conclusions having been finalised, the Council hopes to submit a long-term plan to the Minister of Education in May 1971.

Directly or indirectly, the problems of elementary and secondary education affect everyone and, though naturally a continuous and long-term governmental effort is required, the understanding and co-operation of the people themselves is indispensable to effective reform. It is important that everybody supports educational reform for this will affect the ability of future generations to create a new era - an era with a full understanding of the Japanese tradition that recognised education as the motive force of all progress.

Chapter I

CENTRAL PROBLEMS IN ELEMENTARY AND SECONDARY EDUCATION

I. Contemporary Society and the Role of School Education

The present era is one of rapid change. Knowledge and technologies are quickly out-dated and need constant revision. The belief that men can complete their education by a certain age has to change. This, with the extension of life expectancy, means that people are regularly in need of new education in order to lead a full life in our changing environment.

Education, in a broad sense, is provided not only in schools but also at home, at work, in the community and via the various forms of the mass media. In fact, extra-school education sometimes proves more effective than school education itself. Thus, education is now a life-long matter and its context is that of society as a whole.

The so-called trend to "informalisation" in society has given people the opportunity to broaden their knowledge and widen their horizons but it has formed many types of stimuli, which, it should be noted, sometimes cause harm to the public. It is important, therefore, that individuals should receive a proper education and adequate training at a suitable age.

The problem is to decide on a national basis what sort of educational structure will enable individuals to continue to study wherever they are and to grow and develop fully throughout their entire life-span. It is particularly vital to ascertain what is to be expected of school education, and an ad hoc committee will be formed to study this subject farther.

II. Future Problems in Education

It is evident that education assists the development of personality and that, in turn, personality is the essential factor in the integration of an individual's abilities and talents. In order to understand how education may best support personality development, however, we must take into consideration the practical problems that people encounter in the world around them.

As a result of the progress of science and technology and of the growth of the economy, our life has been undergoing radical change. The degree of freedom and responsibility available to individuals for a full and autonomous life has been extended but, at the same time, the complexity of society and the densely populated and heavily urbanised environment in which people are compelled to exist has separated individuals from nature and made the restoration of "humanity" a serious issue. The growth of international exchange and of the mass media continuously projects news of world events and novel stimuli into peoples' lives and threatens the basis of individuals' values. It was expected at the end of World War II that defeat would result in the decline of the authority of tradition and that the denial of everything old would result in the creation of a new era, but the only outcome has been cultural discontinuity and chaos. The defeat in the last war has disillusioned people about the nation and even the significance of the State and the nation as the foundation of life and culture has been obscured. A disparity of opinions has also appeared over how a democratic society should be organised.

This contemporary state of affairs underlines the necessity for individuals to acquire sufficient strength to be able to live independently and exercise their own judgement. Such strength, however, cannot be acquired through the mere learning of knowledge and skills; it depends on the degree to which self-sufficient personalities, able to integrate their various abilities and talents, are developed. The goals of education, therefore, as far as personality development is concerned, should be to help people become fit, strong and capable of acquiring the abilities necessary for a satisfactory and creative life and to help individuals acquire social adaptability and the capacity to resolve difficulties. The Japanese, with their innate comprehension of values, should realise their national identity and, on the basis of the rules of democratic society and their national tradition, should be able to contribute to the peace of the world and the welfare of mankind through the development of individualised but universal culture.

As a result of the post-war educational reforms, compulsory education extending over nine years has become an integral part of Japanese society, equality of educational opportunity has been more successfully approximated and the educational standard of the people has risen in striking fashion. There can be no doubt that these developments, in addition to the development of education over many years, have made an important contribution to Japan's socio-economic developments. Today, however, education is faced with the qualitative problems that have resulted from quantitative educational expansion as well as the confusions and complications emanating from the rapid implementation of reform after World War II.

If the problems of school education are to be considered in terms of an evaluation of the past and an analysis of future demand, the main objectives of the reform of elementary and secondary education can be summarised as follows:

> 1) In elementary and secondary education, which provide a basis for the development of individuals throughout their lives, importance should be attached to pupils acquiring the necessary rudiments of national education and developing their personalities to the full. To do this education must be improved so that school teaching may be carried out in response to the process of human development; methods should be in accord with individual pupils' characters while content should be highly selective in the light of the different stages of human growth.

Ideally, education should cultivate a man's personality, and should enable individuals to pursue desirable objectives to the full extent of their abilities. At the same time, as stated in the Fundamental Law of Education, it should aim to produce individuals who will support a peaceful nation and a peaceful society. The individual does not exist in isolation from the State or from Society and can only develop his individuality and demonstrate his creative ability within the context of the socio-cultural tradition within which he lives. If we ignore this fact, cultural discontinuity and increasing confusion will result, for the freedom to pursue diverse values can only exist within the established order of a democratic society. Education must try to develop individual talents within a common cultural and social setting and then an enriched individuality will become the foundation on which to build a new culture for this nation and society.

An educational system tends to reflect the social demands made upon it at the time of its creation. Any system, though once thought to be ideal, must continuously improve itself, working towards the maximum development of human potentiality. Schools and the content of curricula should also be continuously improved as more is discovered about human development.

Individuals are all different, both in their inherited predispositions and in the nature of their development, and the same educational method will not suffice for all, even if the matter to be taught be the same. In particular, during the period when individualised growth should be promoted, neither the contents nor the methods of education should be uniform. There exists a tendency for students not to acquire even fundamental knowledge and to graduate from school after completing only superficial studies because of an over-emphasis on formal equalities. This tendency is particularly noticeable in the upper secondary schools to which a much larger percentage of the age group now advance.

2) It is the government's responsibility to maintain and improve the standard of the contents and level of public education, to guarantee equality of opportunity in education and thus to work towards the diffusion and development of school education which the public demands. In order to fulfil this responsibility, the government must take a long-term view of educational development, enlisting the understanding and support of the people, and must act with propriety.

Even today some people argue, as did others at the time of the post-war educational reforms, that the administration should confine its activities on education simply to the improvement of the external educational environment and should play only an advisory role. They argue this in the belief that government intervention in educational content was responsible for the creation of a narrow-minded nationalism during the pre-war years. It is, nevertheless, important that the government secure a common basis for the education of the people in the national ideals of the Constitutional Law. Moreover, the government must guarantee an acceptable standard and level of education for all the people and must continuously press for innovation and improvement. It is also important that the government guarantees equal opportunities for education to all people and responds to the justifiable demands for education of different social groups.

In carrying out these tasks, the government should ensure that its measures directly reflect what the people hope to find in the educational system. The execution of its measures should be based on long-range planning.

3) In elementary and secondary education in particular, it is the educator who determines the substance of education. It is increasingly difficult to obtain good teachers, even though so much is expected from education and steps must be taken, therefore, to enable highly-specialised teachers to engage themselves in the teaching profession with confidence and pride.

In this country, the teaching profession has, traditionally, been held in high regard but its status is not that high relatively as the people's educational standards have risen and the numbers of specialised professions have increased. At the same time, partly because the development of teacher training colleges has not met their demands, young people do not find the teaching profession very attractive. Education has to handle the highly complicated and sophisticated aspects of human physical and mental growth, and has to integrate philosophic concepts with scientific methods - a substantially difficult task. Research into education should be encouraged, therefore, to overcome these difficulties and the professional level be kept as high as is possible.

It is necessary, moreover, to improve the training and working conditions of teachers so that young people who choose the teaching profession may be encouraged to participate in in-service training, to improve their professional skills and to work with confidence and pride on their social status as teachers.

Chapter II

BASIC GUIDELINES FOR THE REFORM OF ELEMENTARY AND SECONDARY EDUCATION

I. Developing a School System Adapted to the Different Stages of Human Growth

In order to study possible solutions to the problems of the current school system and gradually to implement educational reform, experimental pilot projects must be carried out aiming at:

1) The improvement of the effectiveness of education throughout childhood by giving children above 4-5 years old but below the lower grades of th elementary school a consistent education in one institution.
2) The creation of a consistent secondary education in order to solve the problems caused by the current division of secondary education into lower and upper schools. The provision of student guidance and of an educational system sufficiently diversified into different courses to meet the various aptitudes and interests of the students, or diversified according to their ability.
3) An increase in the effectiveness of education at each school level by changing the divisions between elementary and lower secondary schools, and lower and upper secondary schools.
4) The extension of the educational programme offered at present in the technical colleges, i.e. a consistent set of courses covering both secondary education and the first stage of higher education, to other types of educational establishment.

The interim report presented by the Central Council in June pointed out that the current school system contains several problems in terms of human development. There is, for example, a similarity between kindergarten pupils and those in the lower grades of elementary schools and also between pupils in the upper grades of elementary schools and in the lower secondary schools. Secondly, the division of secondary education into lower and upper sections fragments the system and may prove injurious to young people's maturation. Thirdly, as the report also stressed, the division between school levels may affect the relationships between boys and girls in different stages of development in the same school.

Various sweeping reforms have been suggested for solving all the problems of the educational system at one go. It is necessary, however, to analyse those specific conditions in which could rest their ultimate success.

There have been occasions in Japan when sweeping educational reform has been undertaken on the basis of the experience of other countries. Today, however, all countries are searching for solutions to the above-mentioned problems of the educational system.

It is necessary, therefore, to develop quite new techniques in order to minimise the chaos consequential on reform and to develop an educational system particularly suited to the actual conditions of this country. An experimental project should set up trials of these new educational techniques on which reform might be based. A certain number of schools should break away from the traditional school system and put new methods into practice in order to see how effective they might prove in terms of human development. Such a project should be carried out over a ten-year period so that its results may be accurately assessed and then, from these results, we should be able to determine whether the new system should be established on a national scale or run parallel with the present system.

In carrying out this project, attention should be paid to the following points:

1) The experimental programme should be based on thorough preparatory surveys and its results subjected to continuous evaluation by a professional organisation with the co-operation of educationalists, researchers and administrators.

2) The experimental schools should not be located within one specific area alone, nor accommodate only a specific group of pupils.

3) Pupils completing courses in the experimental schools should be able to move to schools in the established system without difficulty. They should also be able to go to a regular school if they so wish, even when an experimental school has been launched in their own school district.

The aim of (1) is to study the various possibilities of group education during childhood. It is aimed, that is, at drawing specific conclusions about the problem of linking present kindergarten education with elementary school education, and about the proposals to lower the age at which elementary education might be started (bearing in mind the increasing precocity of small children) and to consider the possibility of developing young children's abilities more effectively by involving them in the educational process at an earlier age.

Referring to (2), it is pointed out that the current practice of dividing secondary education into lower and upper sections, both of short duration, disrupts the growth of young people during adolescence and creates problems for the students when they come to choosing courses suitable for their future careers. This is something in which the students require guidance from the teachers. A study should be made of the kind of practical steps one could take towards an educational system in which students are guided towards the courses most suitable for their aptitudes without the employment of the selective mechanism of an entrance examination.

A different viewpoint is put forward under (3), with a suggestion for a new division of school levels. This would combine the upper grades of elementary school with the present, lower secondary school and would combine the upper grades of the present lower secondary school with the present upper secondary school. The purpose of this would be to provide an educational system more responsive to pupils' different stages of development. Various proposals have been put forward, such as extending lower secondary school over four years and upper secondary school likewise. These, however, need to be given careful consideration in terms of their relationship to (1) and (2) or to the present school system.

In connection with (4), in view of the striking achievements of technical colleges, it is proposed that technical college education should be extended to cover specialised fields which, at present, are excluded. This kind of education, freed from the bad effects of the entrance examination, can put more emphasis on character building for young people. Although it is advisable to proceed cautiously, new opportunities should be sought for expanding the technical colleges in their relationship to the vocational courses in the upper secondary schools, and for creating new schools under the experimental pilot projects, in relationship to the upper secondary schools too.

II. Reforming the Curricula in Accordance with the Characteristics of Each School Level

The curricula offered at each school level should be consistent and should aim to give the pupils the basic educational skills needed as Japanese as well as developing their individual personalities. At the beginning their emphasis should be on the learning of certain standardised, well-chosen essentials and the school system should then allow individuals to choose those courses best suited to their particular abilities and interests. From this viewpoint the following need further examination:

1) The promotion of consistency in the curricula offered from the elementary school through to the upper secondary school, careful selection of curricula contents, and further examination of the classification of subjects taught, (especially in order to improve basic education in the elementary school).

   In the lower secondary school, students should be carefully observed and given guidance in their preliminary selection of future courses. Their individual characteristics at this stage of development should be given consideration. In addition, a fundamental and common curriculum, forming the first part of secondary education, should be thoroughly studied by all the pupils.

2) The diversification of the contents of upper secondary school curricula to enable students to choose courses suited to their particular abilities and interests. In this context, while the courses are diversified, it should be made easier for individual students to transfer from one course to another according to the development of their abilities and change of interests. The system should also be structured so that students may advance to schools of a higher grade from various courses.

Curricula have been improved, but in the current situation, in which nine years of education are compulsory and more than 80 per cent of lower secondary school pupils advance to the upper secondary schools, new thinking is required. The idea of teaching a complete set of courses at each school level should be abandoned and attention focused, rather, on consistency in education effective as a whole, while each educational level should have curricula in accordance with its nature.

A number of defects are pointed out at present: curricula are too extensive at a level where only basic education is to be emphasised, an unnecessary duplication of curricula occurs between different school levels, an emphasis on formal equality ignores individual differences at the upper secondary level and, pupils' physical strength is under-developed in spite of the general improvement in their height and weight.

During elementary education it is important to cultivate basic skills. The teaching of Japanese should receive emphasis as this gives the students a basic skill and enables them to think, express themselves and communicate with others more effectively; it also plays an important role in the transmission of culture. Mathematics, as a basis for logical thinking, should also be emphasised. Particularly for the lower school grades, it is important not to design curricula in terms of the current division of subjects but to design courses suited to the different stages of pupils' development. It is, after all, important that at this stage pupils develop their basic attitudes and skills and learn by means of an integrated educational programme in which intellectuality, emotion, perseverance and physical fitness are combined.

An attempt to respond to the wide diversity of the students' abilities, aptitudes and interests will create various difficulties for upper secondary school education. It is necessary to investigate the possibilities of making available to general course upper secondary schools, in which most of the students are enrolled, a wide selection of courses from which they can choose in accordance with their academic progress and the crystallisation of their interests. Pupils' abilities and interests should not, in this context, be taken as static, however, and pupils must be enabled to change their courses as the need arises. So that pupils from such courses, as well as from the vocational courses, should be able to proceed to higher education, those in charge of higher education must provide links between such courses and higher education and amend their method of selecting applicants accordingly.

III. Students' Selection of Courses and the Improvement of Vocational Guidance

Education's difficult but important task is to guide students to select suitable courses at each level of education. The realisation of a pupil's potential and individual traits should be effected as objectively as possible. To do this properly, however, education requires the understanding and co-operation of home and of society.

It has been noticeable in upper secondary schools that the majority of students choose to take the general course, partly because of the better chances that it offers of proceeding to higher education, and partly because, on graduation from lower secondary school, most students still do not know what they want to do in the future. Far too many students on the general course hope to join a group that gives better preparation for success in advancing to higher education; consequently these students graduate from the upper secondary schools without having completed adequate studies. This suggests a need, as stated above, to institute diverse courses, even within the general course, to enable students according to their ability to proceed to higher education from any of the courses. This would preclude the danger of some courses becoming terminal and preventing students proceeding to higher education.

Even these measures will not solve all the problems. However diverse the courses offered, students will not change in their tendency to converge on specific courses if, at the same time, no adequate guidance is given. In this country, those once admitted to a course of any type are allowed to proceed to a higher class or even graduate on the basis of extremely unsatisfactory results. Students are inclined to take theoretical and prestigious courses even if they acquire little of use from these studies. Such being the case, there is a danger that the significance of course diversification will be lost.

Both students and society will be the worse off if such a situation remains unchecked. Even if students feel satisfied with such a state of affairs while at school, there is the danger of them being severely depressed in the future if their education proves of no real use. Those in charge of education should realise that their main task is to help students understand the importance of determining their own future themselves and the folly of devoting themselves to competition with others.

It is important, therefore, to assist students in the choice of courses suited to their abilities and interests so that their studies may be of real value to them. Diversified courses to meet different abilities, aptitudes and interests must also be prepared. Since the performance of such tasks requires specialist knowledge and training, it is important to make a continuous effort to improve the ability of teachers to offer students constructive guidance. Simultaneously, the understanding and co-operation of the students' homes and of society in general are vital to the successful execution of such a task by the school authorities.

IV. Improving Educational Techniques in Order to Develop Students' Individual Abilities and Interests

The success of education depends not on what is superficially studied but on what is actually learnt. In this learning process, teaching skills and techniques are as important as the content and level of education offered.

It is very important, therefore, in ensuring the attainment of our educational objectives, to make the best use of those teaching techniques which can be adapted to individual abilities and interests at each school level. To this end all suitable measures should be studied further, with particular attention being paid to the following:

1) The creation of flexible class management by employing techniques like instruction by grouping, etc., in order to provide an effective education which will both conform to educational objectives and prove suitable for individual pupils' characteristics.

2) The creation of opportunities for individual study so that students can pursue their studies in a rational manner and in a fashion suited to their individual characteristics.

3) The establishment of a flexible system within which guidance may be given to students of different grades simultaneously; this may be found more effective than giving guidance to students one grade at a time.

4) Allowing mature students in the senior grades to take the exceptional step of advancing to higher education.

Because different students have different bases of knowledge and experience, and because individuals may differ in their grasp of or progress in different subjects, there are many cases where differentiated educational techniques have to be employed even to obtain amongst pupils the same educational objective.

Such individual differences are not given, however, but change according to the educational objective at stake.

"Instruction by grouping" has hitherto been branded as non-educational and has encountered opposition; it was previously misunderstood as a method for providing different levels of education for students by means of grouping them, according to certain indices, into advanced or inferior groups. Educationally speaking it is worse, however, to treat all students similarly than it is to take account of their differences. What is important here is to avoid making student groups inflexible, to move students from group to group as different educational objectives require and to use the teaching techniques most appropriate, in particular, for those students whose scholastic level is lower than average so that they may master their curricula. In addition, the class, with its various types of students, must be handled so that the educational function of its group life is not impaired.

It is important in education to enable all students to advance their understanding by individualised instruction. Today, therefore, efforts are being made to introduce teaching machines and other such devices. Research into the use of such machines should, of course, be encouraged, but this new teaching method requires further investigation, with an assessment of the merits and demerits of such individualised learning, and of the educational effects expected from class studies and contact between students and teachers.

It is necessary, all the same, to popularise the use of teaching machines and develop a national way of using them as their introduction could both improve individualised learning and also existing teaching methods in general.

In opposition to the traditional giving of education and instruction to each grade is proposed the so-called "non-graded system", under which individualised instruction is to be offered to students according to the degree of their progress. This proposal is worthy of consideration. As far as the students' progress to higher grades is concerned, exceptional measures should be permitted in the case of students who have shown special development and whose mental and physical maturity deserves rapid educational advance. This is the way to respect individuality.

To obtain better educational results by means of instruction by grouping or by the individualised learning process mentioned above, one must both improve the distribution of teachers and staff and facilities and equipment and also try to elevate teachers' aspirations and teaching abilities.

V. Maintaining and Improving the Standard of Public Education and Equality of Educational Opportunity

The government should reform the administrative and financial arrangements which regulate education in order to ensure equality of educational opportunity with attention, in particular, to the following:

1) Maintaining curriculum criteria and other educational standards at an adequate level and improving them by means of their continuous re-examination in response to social development.

2) Securing the public nature of the private schools that play an important role in public education, improving their educational conditions and relieving students of the financial burdens of studying in these schools.

3) In keeping with the diversification of employment opportunities, making the conditions of study for young people already at work more flexible.

It is important that the government employ educational research and development more positively in the reform of the educational system and, at the same time, improve and even up the contents of the current system.

The outcome of an improved standard of education will depend very much upon the creativity and imagination of the educators themselves. It is necessary, however, for the government to define minimum criteria for curricula in order to ensure that the educators' efforts are in line with the educational objectives stated in Chapter I. It is the government's duty to guarantee an adequate quality and level in education for the nation as a whole. Furthermore, adequate standards for the construction of classes, number of teachers in a school, school facilities, equipment and teaching materials must be settled. All requisite standards, that is, must be determined and improvements promoted within the framework thus provided. Research must also be continuously carried out so that these educational criteria may be regularly revised. New research findings on the effectiveness of education must be incorporated into policy-planning in response to changes in social conditions.

The importance of private schools in kindergarten and upper secondary school education is very considerable and there are also a few elementary and lower secondary private schools with their own unique features. In general, because of administrative problems, these schools provide inadequate educational conditions and impose an excessive financial burden on parents. They do, however, share, with the public schools, an important role in public education and to leave them in such a plight would be to upset equality of educational opportunity, particularly for those in certain geographical areas. Because of this, financial assistance, similar to that available to the public schools, should be extended to the private schools (excepting to those which do not desire it). Investigations should also be made into the feasibility of guiding the private schools towards the requisite educational standards and of co-ordinating private school education with local educational programmes.

In accordance with economic growth and with changing supply and demand relationships in the labour force, working conditions are being diversified in various districts with, for example, a reduction in working hours. It is, therefore, necessary to amend and make more flexible the schooling period, educational content and educational structure of both part-time education and upper secondary correspondence courses.

VI. The Expansion and Development of Kindergarten Education

In view of the importance of education for small children and the popular demand for kindergarten education among the people, the government should actively promote the following measures for the improvement of kindergarten education:

1) The expansion of kindergartens with the primary objective that all 5-year old children who so wish may be enrolled in them; obliging municipal authorities to establish kindergartens with the necessary capacity, with an increase in financial aid from the national and prefectural governments for this purpose.

2) Along with the proposals suggested in (1), the co-ordination of the geographical distribution of kindergartens so that both public and private kindergartens can play their respective roles in public education; at the same time the taking of all financial measures necessary to enrich the quality of kindergarten education and lower the fees borne by the parents.

3) To improve the criteria for kindergarten curricula, basing improvements on the findings of research into pre-primary education.

4) A changeover from individually-operated kindergartens to incorporated kindergartens in as short a period as is possible.

It is important for the future to decide how homes and schools may together carry out the education of small children, since education in the early years of life is known to affect a person's entire life significantly. Many people recognise that it is especially important for their future development to provide children of pre-school age with an experience of group life such as is not available in the home. This is why we suggested in Section I of this Chapter that experimental pilot studies should be set up to investigate future possibilities in this field.

By their very nature, however, pilot projects of this sort, run alongside the current system, take some time to produce results. Measures are still required, therefore, for developing the existing kindergartens which form the mainstay of pre-primary education. Popular demand for kindergartens is high and so it is necessary to promote and expand kindergarten education. As the first target, all five-year olds should be enabled to enrol in kindergartens if they so wish, any geographic imbalance in the distribution of kindergartens should be redressed and equality of opportunity thus further promoted.

A major problem related to the implementation of this policy is how to adjust the relationship between public kindergartens and private kindergartens as well as the relationship between kindergartens and nursery schools. At present 70 per cent of kindergartens are private and the total geographic distribution of all kindergartens is not at all even. In order to make kindergarten education available to all children and redress the shortage of places it is necessary to make the establishment of kindergartens the responsibility of cities, townships or villages. This should also be accompanied by a more satisfactory geographic distribution of public and private kindergartens. The quality of public and private kindergartens should be improved too and steps taken, in the case of the private schools, to ensure that the costs to parents and the standards of education are the same for both public and private establishments. The national government or the prefectures should, therefore, provide the cities, townships or villages with the necessary financial assistance. Local governments should view the overall situation in their area and, within a well-administrated regional planning programme, adjust the capacities of public and private kindergartens and ensure an adequate educational level in the latter. Enrolling children of three to four years old in kindergartens should also be given consideration.

Provisionally the nursery schools should aim to give to those children in need of nursery care an education equivalent to that of the kindergarten. The goal should eventually be, however, to include such children in the kindergartens themselves. Steps should therefore be taken to give to nursery schools of a certain requisite standard the status of kindergartens.

Along with this effort for expansion, possible improvements in the criteria for kindergarten curricula require examination and further research. This, however, will necessitate an improvement in and broadening of the training of kindergarten teachers. Furthermore, amongst the private kindergartens, individually owned schools should be turned into incorporated organisations as soon as is possible so that their legal position may be firmly established.

VII. The Improvement and Expansion of Special Education

The government has the important responsibility of guaranteeing equality of educational opportunity to all people according to their ability. Some, however, are mentally or physically handicapped and not suited to the ordinary schools or to normal teaching methods. In order to ensure special education for such individuals the government must make both financial and administrative arrangements in order to implement the following:

1) To make compulsory education in special schools a reality for the handicapped (this has been too long postponed), and to charge the cities, towns or villages with the responsibility of establishing sufficient special classes for all mentally retarded children.
2) To universalise and diversify education in order to meet the various needs of mentally and physically handicapped children, in particular by sending teachers to those children who, for medical or other reasons, cannot attend school.
3) To encourage the government to play a more active role in improving facilities for special education by establishing institutes for children with multiple handicaps of a serious nature.
4) To improve the treatment of mentally or physically handicapped children by earlier discovery and treatment of their problems; to improve post-compulsory education and promote a closer relationship between special education and policies concerning medical affairs, protection, social independence, etc.

So far special education has been developed by a few enthusiastic educationalists or by volunteers. Though it has gradually attracted more attention, it still does not receive enough administrative support. In terms of the national ideal of respecting all people as individuals this situation should become the subject of immediate improvement.

The School Education Act has been in effect for more than twenty years, but compulsory education in terms of special schools for the three types of handicapped children (the mentally retarded, the physically handicapped and the physically unfit) has not yet been put into effect. This must be done as soon as possible. Cities, towns and villages must be made responsible for opening special classes for those who are not too seriously mentally retarded, for those with poor sight, or for the deaf, so that all may have an equal opportunity to attend school.

Teachers should be sent to those children who, for medical or other reasons, find it difficult to attend school and the method and content of such teaching should be considered very thoroughly. The system of sending professional teachers to classes in which there are mentally or physically handicapped children should also be popularised.

Children with multiple handicaps should be educated in special classes in the special schools. There are not many of these children, however, so methods for teaching them are not very well developed. The government should, therefore, establish institutes for such children giving consideration to their medical care and their protection.

The education received by the mentally or physically handicapped during infancy has much effect on their later development. There is, therefore, an urgent need for the provision, within the educational system, of a means of diagnosing handicaps and commencing special education whilst the children are still very young. In addition, handicapped children should be helped to adapt to society and become more self-sufficient by the expansion of post-compulsory education and of the education offered in the senior grades of the special school. Such children should not be made to conform to the normal school attendance pattern but should be allowed a degree of flexibility in terms of the extent of their handicap and of their ability and aptitudes.

What mentally and physically handicapped children need is not only education in a narrow sense, but also medical treatment, protection during their daily lives, and training for social independence. Education cannot be expected to cope with all this and such needs fall into different administrative categories. It is hard to co-ordinate the measures for dealing with these needs, however, and the government must find a way round this.

To expand and improve education in the above manner, efforts should be made to bring people to a better understanding of the educational significance of special education. In addition, teachers must be trained in the skills involved in teaching handicapped children and a system of research set up to provide a basis for the improvement of educational content and methodology.

VIII. Improving the Structure of Management Within the Schools and the Administrative Structure of Education

So that schools can integrate their activities in support of the objectives of public education and hold themselves responsible to the people, the following reforms should be considered:

1) Establishing an administrative structure within each school by the creation of the necessary posts. Administrators should participate in school activities and ensure a lively and well-organised school programme under the guidance and responsibility of the school principal.
2) Taking steps to unify the system of local educational administration in charge of public and private schools.
3) Devising a new method for reflecting popular criticisms and demands arising from the government's activities to improve educational administration.

Since it is the individual teachers who are responsible for practical educational activities in school, the liveliness of any educational programme depends on their spontaneity and creativity. One should, therefore, enable every teacher to become an active participant in the realisation of the objectives of education and educational planning. It is the school principal's responsibility to maintain the unity and co-operation of the school as a whole and to lead the school towards new educational standards. It is essential, however, that in the new system of school management, each teacher should play a clearly defined part in keeping with his personality while the overall system should encourage teachers to co-operate.

To meet these requirements a staff organisation for both administrators and teachers should be formed. This should consist of the assistant principal, the chief instructor, the head teacher in charge of each grade, the subject director, the chief counsellor, etc., in accordance with the type and size of the school and the nature of these posts.

As stated previously, private schools along with public schools, play an important part in public education. Therefore, in order to secure equality of educational opportunity for all people, the geographical distribution of both types of schools must be adjusted by administrative and financial charges and an overall set of educational standards stipulated. This will require the integration of the various branches of local educational administration as the administration of public and private schools is currently shared between the prefectural boards of education and the governor. In the immediate future, steps should be taken to promote closer relationships and co-ordination between the two organisations and, at the same time, consideration should be given to the reform of the structure of the boards of education so that they may integrate all aspects of their administrative work and give adequate guidance and assistance to the private schools.

It is worth pointing out that there are a variety of problems involved in requiring every city or village to form a board of education. In practice this may not always work. The adequacy of towns and villages as units of educational administration, and the possible expansion of such units should, therefore, receive serious consideration.

Because the government's educational policy and the administrative measures adopted are very important matters affecting the children of all the people, special consideration has to be given to their continuous improvement. That means it is necessary to understand exactly what the people in general, besides the limited number of educationalists, think about governmental policies, what criticisms they make and what hopes they have of them. Arrangements must then be made to reflect these opinions in the course of improving policies.

IX. The Training and Recruitment of Teachers and the Improvement of their Status

The following measures should be enforced on a comprehensive scale in order to secure the best possible teachers for the educational system. Such measures take account of future extensions of the teachers' role and aim to improve the quality of the teachers' work as well as their social and economic status.

1) In principle, elementary school teachers should be trained in special institutions of higher education with curricula designed specifically for their needs (i.e. in "teachers' colleges"). A certain percentage of secondary school teachers should be trained in the teachers' colleges too. Teachers of superior quality should, however, be recruited by attracting university graduates with certain qualifications into the teaching profession. In doing this, steps should be taken to adjust the supply of and demand for teachers in different parts of the country.

2) In addition to improving the teachers' colleges, the government should take appropriate steps to train teachers according to a definite programme and should increase the financial aid received by students in order to train sufficient teachers for the compulsory schools.

3) It is necessary to consider the possibility of establishing a system whereby new teachers could be recruited for a probationary year by the authorities in charge of appointments. Teachers would then be officially employed if they had proved themselves capable. This system would guarantee an improvement in the in-service training of new teachers. Teachers would become more self-conscious and attain higher levels of practical teaching ability.

4) The system of granting teachers' licences to talented individuals who, though erudite and experienced, have no teachers' certificates, should be extended.

5) Institutions of higher education should be established within Category IV (see "Basic Guidelines for the Reform of Higher Education", Annex II, Chapter II) for advanced educational research and teacher training. Those teachers graduating from such institutions with highly specialised qualifications should be granted a salary in accordance with their special status.

6) As for teachers' pay, teachers' salaries must be kept at a level high enough to attract distinguished individuals into the teaching profession. A salary scale must be created which will ensure more teachers of salary increments as their abilities become more specialised and their administrative responsibilities are extended.

In addition, since the people put a high value on education and expect much from the teachers, teachers should form their own professional organisations and try to raise their standards through a mutual exchange of experience. Teaching may then become socially recognised as a profession with highly developed skills and a firm ethic. If teachers make continuous efforts to develop their skills by means of the suggested training programmes, their opinions will be respected and they will live up to what people expect from them.

The teaching profession essentially requires a very wide range of skills. It requires, in addition to basic teaching qualifications, a thorough understanding of educational principles and of human growth and development, and a professional knowledge of subject matter; this understanding and knowledge must be co-ordinated and put to effect by practical teaching ability. Such qualities and abilities should be developed during the process of teacher training, recruitment, in-service training and re-education.

During teacher training, elementary and secondary education should be treated separately. In most countries it is impossible to train teachers unless the teachers' colleges provide special courses in elementary education; the colleges need to teach all subjects and give their students a full understanding of the growth and development of infants and children. Some may think, however, that teachers' colleges need not worry about secondary education as in this field teachers concentrate on their own specialisations. Many distinguished teachers have in fact been ordinary university graduates. In the now compulsory lower secondary schools, however, and in the upper secondary schools where enrolment runs at 80 per cent of the age group, the educational problems are quite different from those of the pre-war middle schools.

Therefore both lower and upper secondary schools need teachers trained in teaching and counselling young people with various qualities, abilities and interests. In this context the teachers' colleges are going to be very important. (They need not always, however, be national colleges.)

Recent population movements between different areas have been increasing. It is necessary, therefore, with the co-operation of the government and local governments, to adjust the supply of and demand for teachers and to ensure an adequate supply of properly trained teachers.

The government needs to emphasise the importance of effecting the much-delayed improvements in teacher training in the teachers' colleges; good quality staff must be recruited and the courses in general made attractive to students. The government must also ensure that the teachers' colleges train an adequate supply of high-quality staff for the compulsory stages of education. Financial assistance to students must also be expanded. Furthermore, attempts must be made to improve the system whereby students obtain their teachers' qualifications through designated course work and teaching practice. So far this system has not worked very well and has become a mere formality.

To maintain the quality of teachers and, at the same time, improve their training, the processes of recruitment, in-service training and re-education must also be revised. In order to help teachers develop a degree of self-awareness and a positive attitude to their work, they must be trained within an actual teaching situation and, as in many professions today, learn from both their predecessors and from those in charge. To implement such a scheme individuals with particular status should be recruited to run training programmes and should be given the appropriate working conditions. At the same time an institution in charge of all teacher training should be set up and the numbers of teachers be fixed by law at sufficiently high a figure to ensure the smooth functioning of the training scheme.

There are many people around who would make excellent teachers, even though their initial careers have not been in the teaching field. Coming from a variety of backgrounds, professional knowledge and experience could make a substantial contribution to education. Such individuals should be encouraged to enter the teaching profession and a teacher's licence should be made available to them even though they may not have teachers' qualifications. This would militate against the insularity of the teaching profession and would help to keep education lively and broad-minded. It would be particularly desirable to operate such a scheme for industrial and special education.

Teachers should extend their own range of experience, continue their own training and keep their professional skills up to date in order to maintain the quality of education. Teachers with special achievements or skills, or those who have been involved with the graduate schools and research establishments (Category IV)(1) should be accorded an appropriate professional level and socio-economic status and should provide the teachers' colleges with experienced staff.

In principle teacher training is the responsibility of the institutions of higher education in Category I. In practice, however, many elementary and nursery school teachers are junior college graduates. Taking into account the future adjustment of supply and demand, it would be more appropriate to allow graduates of higher education institutions within Category II to become teachers.

Such measures would improve the quality of teachers by affecting the processes of training,

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1) For the suggested Categories (I-VI) of Higher Education, see "Basic Guidelines for the Reform of Higher Education", Annex II, Chapter II.

recruitment and in-service training. For these measures to function effectively, however, distinguished individuals must be invited to join the teaching profession whilst those already in the profession must try to maintain a high standard of achievement. To this end teachers' salaries must be raised so that qualified graduates will go into teaching. So far teachers' salaries have been based on the seniority principle but now, in order to encourage teachers in their work, a salary system must be established in which teachers can be paid in accordance with their professional performance or administrative responsibility.

The above-mentioned structural reforms are the basic conditions in which to maintain a high standard of teaching within the profession. Nevertheless the most valuable educational activities can only depend on the spontaneous creativity of the educators which results from their basic confidence and pride in their role as teachers. It is the job of the teachers' professional organisations to promote and encourage these creative activities. It is hoped that such organisations will, as in other countries, attempt to raise the standard of teaching and contribute to the development of education by means of upholding the professional code which is of such importance to their activities, and also by making constructive proposals. In addition, teachers and also the professional organisations of teachers should ensure the neutrality of education and the maintenance of the school system by avoiding the introduction of politics into education.

X. The Promotion of Research into Educational Reform

> In view of the present, rapid changes in education and the pressing need to improve its quality, a research centre must be set up in order to promote the reform stated above through the elevation of professional standards of teaching and through the development of practical educational methods.

Up to the present time no concrete solutions have been found to the educational problems confronting society today. Extensive study is required in order to find the best method of implementing the reforms to the present Japanese educational system mentioned above. Further information must be gained on such subjects as the effect of various academic disciplines on child growth, a comprehensive assessment of individual ability from various viewpoints, the development of new educational techniques based on theories of the learning process, practical social adaptability, improvement of the educational environment in schools, and so forth. Unless such problems are solved, it will not be possible for education to play its proper role in society.

The fundamental problems of education arise and must be studied within the context of a more general study of human problems. It is almost impossible to make a proper investigation without overall co-ordination of each field of study, including, of course, education. The results of research in the fields of philosophy, psychology, sociology, medical sciences, and engineering are in particular indispensable for the development of educational theory and methodology. Nevertheless it is becoming more and more difficult to co-ordinate the different fields of learning owing to the diversity of subjects under consideration.

Although there is a not insignificant number of research workers and research institutions in Japan it cannot be said that there are any clear objectives to the research being carried out, nor is research being promoted in a systematic way. In addition neither the standard of research institutes nor the treatment of the researchers is sufficiently high to attract first-class people into the field of research into education. In order to upgrade the quality of education the first step to be taken is to improve the working conditions of researchers from the financial and organisational points of view.

It is necessary to make clear to researchers the theoretical and practical tasks required in order to achieve the goals laid out in these Guidelines. Co-operation should also be maintained with researchers in related fields. This is also an essential condition for carrying out properly the pilot experimental project mentioned in (I) of this Chapter and the results of the research and development will provide important fundamental material for the formulation of a programme for future implementation.

For this purpose the establishment of an institute such as the "Research and Development Centre for Education" is needed for the qualitative innovation of education and popularisation of its results. Its tasks would include choosing subjects for long-term research according to priority, improving co-operation between schools, research institutes and universities in different areas, and the adjustment of expenses for various research programmes.

Annex II

BASIC GUIDELINES FOR THE REFORM OF HIGHER EDUCATION

(An Interim Report of the Sub-Committee XXVI)

Introduction

The Central Council for Education was asked by the Minister of Education in July 1967 to consider "fundamental policies and measures for the future expansion and development of school education". As a first step, the Council submitted an interim report, containing an evaluation of the development of Japanese education, in June 1969. The Council was also asked to consider "policies for the current tasks of university education" and submitted its recommendations on this subject in April 1969.

The Central Council then set up, in July 1969, two ad hoc committees, i.e. Committees XXV AND XXVI, to consider a fundamental reform of school education on the basis of the Interim Report and the previous recommendations. Committee XXV was set up to consider elementary and secondary education, Committee XXVI for higher education. The term "higher education" signifies all post-secondary education.

Committee XXVI has so far held forty general meetings and more than ten sub-meetings and has completed its consideration of the main problems. In August of last year questionnaires were sent to various parties concerned with university reform and their replies were then taken into consideration. When, in January 1970, the Draft Plan for the Reform of Higher Education was made public, the opinions of about thirty bodies, Councils and governmental agencies concerned, were also obtained and this was followed, in March, by public hearings in Tokyo and Osaka. This report now presents the basic guidelines for the reform of higher education which the Council considers, at this stage, to be most appropriate.

In finalising this draft plan, the Council has paid special attention to the problem of equating traditional concepts of higher education with present and future social realities and of forming a structural framework for higher education in order that it might fully play its role and assume its responsibilities. Through both teaching and research universities have been expected to contribute to the propagation, criticism and creation of culture. They have also been expected to contribute to national and social development and to human welfare by developing individuals of culture and integrity and of a high level of intelligence and skill. Today the functions of the universities are more diverse than ever and, if all the demands on higher education are to be met, a new system of higher education must be devised, one which can really match a complex and advanced social structure. It should be noted, in particular, that the concept of "academic freedom", is indispensable if the university is to play the role of social advisor and social critic in a free and humanistic fashion. At the same time the university should try to face historical and social realities and fulfil its social obligations by establishing a new relationship with society and identifying the direction in which research and education should be developed.

The organisation of institutions of higher education is inseparable from the organisation of academic research. This report considers this in some detail, but draws no particular conclusions in this instance. Medical education and training is to be considered elsewhere, though, in principle, it should be included within the scope of this report, since it is related to problems that lie outside the educational system.

The Council has held frequent joint meetings of its two sub-committees in order to deliberate the relationship between elementary, secondary and higher education and, wherever necessary, the results of these meetings are incorporated in this document.

The Council will continue to consider practical measures to implement these guidelines. This means that the Council is going to examine social demand for higher education, forecast needs and estimate the human, physical and financial resources required. Practical methods for implementing reform are to be reviewed and recommended. In the creation of such a Plan, one looks to the proposals and the co-operation of the educators concerned as well as that of the general public; it is on such a basis of advice and co-operation that the reform of higher education may be carried through most satisfactorily.

Chapter I

CENTRAL PROBLEMS IN THE REFORM OF HIGHER EDUCATION

Disputes within the universities in recent years have made the public aware of the necessity for a reappraisal of the system of higher education. As stated in the recommendations which the Council submitted in April of last year, these disputes are related to various political and social factors, and need to be considered separately from higher education itself. It is true, however, that a solution to these disputes has been made more difficult by the persistence of fundamental institutional problems.

Many proposals for the reform of higher education have already been made public, but to consider these reforms in a constructive manner requires an initial consensus on and understanding of the main problems involved. In the following discussion, the Council puts forward its own opinion of these problem areas.

The Council believes that the central task of this report is to present a solution for the current situation; at present the traditional concepts and structures of higher education are proving inadequate in meeting the demands of an expanding system of higher education and of an increasingly complex society.

I. The Demand for the Expansion of Higher Education and the Growth of Scientific Research

> Institutions of higher education should be developed for the future to meet the diversified educational demands of the people. They should aim to raise the standards of scientific research, and train teachers and research workers who can maintain and develop this research.

Since the Meiji Era, higher education in Japan has expanded rapidly in close relation to such socio-economic factors as national income and the level of educational achievement of the public. Today there are 1.6 million students (20 per cent of their age group) and 90,000 teachers in higher education and these numbers are expected to go on rising in the future.

The spread of higher education, though partly a result of the unfortunate tendency of people to pursue educational qualifications simply for their status value, has largely occurred because people in this increasingly complex society are seeking to develop themselves to the fullest possible extent. Many workers with different educational levels desire a chance for re-education, and universal higher education should, therefore, be considered in terms not only of raising the percentage of secondary school graduates going on to higher education but also of extending opportunities for higher education to people of various ages and occupations. A changing society continuously demands the re-development of human potential.

To meet this demand, institutions of higher education should be established capable of satisfying a wide range of students of various abilities and qualifications.

Today in our rapidly changing society it is not necessarily effective to extend the period of school education and thus to teach more. Rather the system should permit students to finish school earlier and receive further education as and when necessary.

Science progresses so rapidly that it has become impossible for the same people to conduct high-level research and at the same time to teach large numbers of students. At the graduate school level it is necessary to have young creative students inherit and develop research programmes while the training of promising teachers and research workers is also an expected function of graduate schools.

Faced with two such different demands for education and research, it is feared that reliance on the traditional conception of the university, in which education and research activities are inseparable, will result in both activities being inadequately handled. It is important, therefore, to differentiate the role and functions of educational institutions, taking into account their aims, character and internal organisation, in accordance with the different requirements of education and research.

II. The Demand for Specialisation and for Integration of the Content of Higher Education

> Tomorrow's system of higher education must be designed, in close connection with secondary education, to help people develop professional skills of use in their future careers. At the same time it must also encourage people to acquire those abilities and that cultural background which will help them meet the increasingly complex problems of a developing society.

As higher education becomes widely diffused, the majority of students hope to become highly qualified researchers by concentrating on a specific academic discipline and also hope to acquire good professional qualifications for their future employment. Such qualifications should be designed to meet the future career needs of individual students, rather than conform to the traditional classifications of academic disciplines.

Our society is rapidly changing, however, owing to the striking progress of science and technology, and the high rate of economic growth. In the future society will be even more advanced and complex. If various kinds of knowledge are to be utilised in order to help the human beings living in this rapidly changing society to progress, not only professional expertise is needed but also the ability to co-ordinate the findings of different areas of research. This is an age in which in education an emphasis must be placed on fundamental and humanistic cultural values if people are to be taught how to choose objectives correctly for themselves and how to have a full and worthwhile life.

So far the university has provided both general and specialised education, but these two categories have not been closely integrated. Specialisation and integration have only been achieved to a limited extent. Overcoming these limitations and developing new and more varied curricula more suited to students' future career needs will be one of the most important tasks in the coming years.

III. Particular Features of Teaching and Research Activities and the Necessity of Efficient Administration

> Institutions of higher education must be guaranteed freedom and respect must be granted to professional opinions in teaching and research activities. Given the increasing size and complexity of universities, in part the result of the growing specialisation of disciplines, more emphasis should be placed on integrating the university as a whole by rationalising its organisation or structure, and by making its administration more efficient.

In teaching and research activities, the spontaneity and creativity of those involved should, in principle, be highly respected. Special attention should be paid to those organising these activities.

Because in the universities academic areas have been narrowly defined, teachers have tended to teach their students only those matters related to their special areas of study. Thus teaching activities have not been fully co-ordinated. Along with university expansion in terms of the number of students and the size of facilities, individual disciplines have asserted their independence to such an extent that many faculties and departments have become exclusive, making university-wide decisions an impossibility. It has also become difficult to realise those aspects of education and research previously mentioned.

To overcome these problems one must rationalise organisations to prevent them becoming too large. One must re-organise structures for teaching and research activities, establish an efficient administrative system and accomplish the integration of administrative and educational activities. For the university as a whole improvements should also be attempted in the organisation of research and of available facilities.

IV. The Importance of University Autonomy: the Dangers of Insularity

> Institutions of higher education are primarily concerned with academic teaching and research and should have an absolute guarantee of autonomy in terms of the structure of their teaching and research activities. Sometimes, however, when too much emphasis is placed on autonomy, these activities become so far removed from social realities that they cannot fulfil their social responsibilities and tend to become introverted and exclusive. In the future, organisational devices must be employed to keep the universities "open" and to prevent their teaching and research activities from becoming moribund.

In the past, Japanese universities have guarded their autonomy zealously from the government for conflicts had been experienced between the national universities and the government over the recruitment and administration of teaching staff. Today, however, politically and professionally organised activities and economic attractions both inside and outside the university campus, are drastically affecting university teaching, research and administration. Although it is very important in the light of the aims and objectives of universities to secure university autonomy against such influences, this does not necessarily imply the removal of all governmental authority. Persistent attempts to remove governmental influence have in fact sometimes made it easier for undesirable elements to permeate the university. What is most important for the establishment of university autonomy today is to create a system within which the universities can make clear-cut decisions and see such decisions exactly enforced.

There exists a conservative belief that university autonomy is best maintained by closing the door of the university in the face of the outside world. This belief has conversely induced various undesirable results. It sometimes happens that universities choose easy methods of doing things solely for their own convenience; as public institutions they lack a sufficient sense of responsibility to the nation and to society because of their reluctance to listen to opinions voiced outside their own walls. They assume a negative attitude towards co-operation with other universities, industry and the community and maintain exclusive attitudes in terms of staff employment. They thus receive few external stimuli. These attitudes result in a stagnation of creativity.

If these deficiencies are to be eradicated, not only must the persons involved be made aware of their shortcomings but an improved form of internal organisation must be established within the universities to enable them, on their own, to reject undesirable influences and arrest their decline.

V. Independence of Institutions of Higher Education and National Planning

> In reforming the institutions of higher education one must restructure their organisation in such a way as to respect and encourage their spontaneous creativity: moreover, on a national scale, one must co-ordinate their activities and grant them efficient assistance.

Institutions of higher education of real quality cannot be created merely by introducing new methods of organisation and finance. There needs to be a relentless and continuous striving of the people within the universities towards the realisation of their ideals. Institutional and financial aid should aim at supplementing the universities' efforts.

The pursuit of ideals by the individual institutions in higher education, does not however necessarily result in balanced, overall growth. Co-ordination is necessary to establish and improve the institutions of higher education needed from the standpoint of the nation as a whole.

It is to be noted, in addition, that the cost of providing a qualitative level of higher education is continuously rising. If the costs of higher education are to be met out of tuition fees only, with no public assistance, either enrolment must be increased above capacity or the level of fees raised above that which the average person can afford. This latter tendency has already been seen in the private institutions, which now enrol 75 per cent of all university students, and poses a great problem. One of the most important problems to be tackled by the government will be the removal of the evils resulting from the extensive financial differences between public and private universities.

To meet this contemporary need, the government's role in directing education towards desirable rational goals must be clarified. The importance of free activity and competition must also be borne in mind.

The government must also plan to co-ordinate and assist the development of science in institutions of higher education in order to improve the academic structure as a whole in Japan and utilise research funds effectively.

Chapter II

BASIC GUIDELINES FOR THE REFORM OF HIGHER EDUCATION

Practical solutions to the basic problems mentioned above have to be carefully examined from a number of aspects. Reforms capable of dealing with the new situations and developments should be based on an understanding of the overall problem and establish basic principles in response to this understanding. Bearing this in mind, the Council proposes the following items for the "Basic Guidelines for the Reform of Higher Education":

I. The Diversification of Higher Education

In order to diversify higher education in Japan in the future, institutions of higher education must be categorised according to students' qualifications and the number of years required for the completion of an average course of studies. At the same time, it is desirable to provide standards for different types of curricula in accordance with the aims and nature of the education. It is also necessary to establish a system where students can easily transfer, at will, from one category of institution or one type of curriculum to another.

1) Category I (Provisionally to be called "University")

Into this category come institutions of higher education providing three or four years of education for graduates from upper secondary schools.

The following types of curricula are to be offered by institutions within this category:

A) A comprehensive curriculum, providing professional knowledge and skills for those careers which are not particularly specialised.

B) An academic curriculum, developed in accordance with the academic system of each academic discipline, systematically providing basic academic knowledge and skills.

C) An occupational curriculum, providing the theoretical and special technical training required for particular professional occupations and providing students with qualifications or abilities for those occupations.

2) Category II (Provisionally to be called "Junior College")

Institutions within this category will offer shorter curricula, in principle two years of education, to graduates from upper secondary schools. The following types of curricula are to be offered within this category:

A) A comprehensive curriculum, which aims to give students, whose future careers will not be too specialised, the necessary cultural background needed by a good citizen.

B) An occupational curriculum, providing the knowledge and skills required by particular professional occupations, and providing students with qualifications and abilities for those occupations.

3) Category III (Provisionally to be called "Technical College")

Institutions in this category are to provide higher education over five concurrent years covering upper secondary education for those who have finished lower secondary education and enabling their students to acquire the qualifications or abilities necessary for particular professional occupations or for other particular purposes.

4) Category IV (Provisionally to be called "Graduate School")

Institutions in this category are to provide an advanced academic education of two or three years' duration in specific academic fields, either for those who have graduated from institutions within Category I or for those who are recognised to have ability equivalent to or higher than the former. They are also to provide re-education at this advanced level for the people in general.

5) Category V (Provisionally to be called "Research Centre")

Institutions in this category are to provide opportunities for research and training and guidance for those who want to pursue an advanced level of academic research leading to a doctorate.

The categories and types of curricula stated here are designed in accordance with the kinds of people for whom higher education should be provided. How to implement these in a legal system, whether they should be in the same or separate campuses when actual steps are to be taken for the establishment of these institutions, and whether the conventional names as provisionally listed above should be used, are factors to be considered more precisely in the future.

There are a few important aspects from the institutional point of view: one must not fix a set number of years for the completion of curricula without considering the differences between areas of study; nor should one stipulate a certain number of years of study as a requirement for graduation as students should be able, within a standardised limit of years, to graduate as and when they have acquired the requisite credits; one should not, however, allow those who do not, within this limit, obtain the requisite credits to continue.

The characteristics of the different categories of institutions of higher education and the types of curricula offered are respectively as follows:

Institutions in Category I roughly correspond to the existing universities. The standardised length of time involved in the completion of studies may vary from course to course but, except in certain special areas, should not exceed four years. It is, in fact, as is stated later, desirable to rationalise courses so as to reduce this to three years. It is appropriate to provide re-education in the institutions of Category IV if this becomes necessary after some years of practical experience after graduation. Type A is to provide those going into a wide range of occupations - in the fields of public administration, industry, culture, and family life for example, with a general and wide range of knowledge and skills for their profession although in this type of curriculum students should be majored in some appropriate area on a broad base of knowledge. Type B aims to provide a systematic education corresponding to the academic structure of studies in each field for those who, after graduation, want to go into professions requiring a fundamental academic training and professional skills. Type C aims to train personnel like teachers, sailors, artists and athletes, for whom specific, standardised courses or special training are necessary because of the particular qualifications and abilities required of them.

Institutions in Category II roughly correspond to the existing junior colleges. The standardised length of time required to complete the curricula offered by institutions under this Category is, in principle, two years. Though assigning students to a particular majored area of study, curriculum of Type A aims to provide the general cultural background needed by a good citizen. Curriculum of Type B aims to provide short-term specialist education for professions in addition to upper secondary education. Education in the existing junior colleges tends to be uniformly a half-sized miniature of four-year university courses, but under this Plan the institutions of this category should be different from that and attention should be paid to developing unique curricula for both types particularly suited to their proper purposes.

Institutions in Category III roughly correspond to the existing technical colleges. The type of education they currently offer in the fields of industry and mercantile marine should be extended to other fields of vocational education where an early, specialised, professional education might also be usefully provided. It is also necessary to consider the provision of continuous education over a five year period for those who have completed compulsory education. This could, for instance, release young people from the stress caused by the worry of trying to pass university entrance examinations, and could place an emphasis on the formation of a sound personality.

Institutions in Category IV are to provide education in specialised areas at a level corresponding to that of the existing master courses of the graduate schools in order to meet the demand for the advancement of science and for re-education. They should provide courses both for graduates from Category I and for those who have reached an equivalent academic level either through on-the-job training or through their own self-training. They should also allow citizens in general who wish to receive further education to obtain credits in individual subjects. It may be possible to make such education continuous by combining institutions of Categories I and IV in certain areas where both are established on the same campus.

Institutions of Category IV were separated from Category V (see below) because existing courses for masters' degrees are different from doctorates in their characteristics. Masters' degrees offer an advanced level of specialist education immediately connected with undergraduate education but the main purpose of a course leading to a doctorate is to give the student experience of and training in academic research. They have also been separated so that, as society becomes more complex, education of the sort provided under Category IV can be made available to the public in general.

Practical problems, such as on what basis institutions in Category IV should accept graduates from institutions of Categories II and III, are to be examined on another occasion.

Institutions in Category V correspond to the existing courses for doctorates. It may be desirable to admit persons to such courses irrespective of their educational status. How to set up institutions within the Category is discussed in this Chapter under Item VI.

Institutions in Categories IV and V are involved both in teaching and in research and therefore as will be explained later, both teaching and research organisations are to be established in those institutions. This does not, of course, imply that institutions in other Categories do not have a research function. Every teacher in institutions of all Categories should engage in both teaching and research (see Item V).

In the case of classifying institutions for medical and dental training into some of the above described Categories or Types, it may be possible to enable students to transfer from institutions of Category I to those of Category IV or to set up institutions in Category I having special courses requiring a particular number of years of study for graduation.

II. The Direction of Curriculum Reform

Curricula in institutions for higher education in Categories I and II explained above (universities and junior colleges) should be developed along lines allowing for the provision of comprehensive or more specialised forms of education. The goals of general education pursued by existing universities would be more effectively approximated if the following improvements are made:

1) General education has, in the past, sought to give students an overall knowledge of various disciplines, an understanding of scientific method, a grasp of the problems involved in the development of culture and a true comprehension of humanity and value. All these aims should be included in every revised programme of study, and pursued integrally.

2) Whatever fundamentals are required in specialised education should be integrated into the specialised education programmes of the respective institutions.

3) Foreign language training should aim to enable students to acquire knowledge of foreign languages of practical use on the international stage. As occasion demands, language training centres set up on campuses may be assigned with this responsibility and the success of this teaching programme tested. (The education of those majoring in foreign languages or foreign literature will be considered on a different basis).

4) Health and physical education should be improved by giving adequate guidance in extra-curricular athletic activities and by supervising the health of all students more thoroughly.

So far university education has uniformly required all students, irrespective of their field of study, to complete standardised general education courses in order to obtain a good cultural background. In many cases, however, this aim has not been achieved as the whole curriculum has lacked integration with general education concentrated in the first two years and separated from specialised education or the content and method of general education inadequately prepared. In addition, the curricula for specialised education have often been narrowly organised within the traditional boundaries of faculties and departments. There are, therefore, many aspects to be reconsidered if students are to be provided with basic knowledge and skills of use to them in their future careers.

Consequently, in the future, the formal, automatic distinction between general and specialised education must be abolished. Integrated curricula arranged with the necessary subjects in accordance with educational objectives should be set up without notice being paid to the traditional divisions between faculties and departments. In the case of institutions in Categories I and II ("University" and "Junior College") various courses are to be set up within each type of curriculum taking into account students' future careers and other factors as well. For example, in organising courses within the type A curriculum in institutions of Category I ("University") for those entering public administration or industrial management, it may be possible to develop a specialised curriculum by integrating major and related subjects from the humanities, the social sciences and the natural sciences. Such a course of study would be broader than that for the traditional law, political science, management or business administration courses. It would, however, be regarded as more specialised since the inclusion of subjects from the humanities and the natural sciences would provide a content corresponding to the central aims of the course and form much more than a general study.

There is no need to mention that learning a foreign language should entail having contact with the culture of the country involved and increasing one's understanding of that country. To date, however, practical linguistic abilities have been developed sufficiently to establish good communications with other countries. The teaching of languages should now receive a new emphasis so that, in the future, Japan may positively promote international exchange, and contribute to the development of the international community.

As far as health and physical education are concerned, an emphasis should in future be placed in higher education, extra-curricular athletic activities and a thorough control of students' health. Physical education has so far been treated as a normal curriculum area and completion of it has been one of the requirements for graduation. This regulation is, however, much too uniform. In future regulations should be made more flexible so that individual institutions might be allowed to decide, in the light of their educational policies, whether or not to make physical education a compulsory subject.

Even if the above-mentioned rationalisation of curricula shortens the standard number of years currently required by universities for graduation, it may be possible to maintain the present level of quality.

To make a substantial increase in the effectiveness of education requires such practical steps as a revision of teaching methods in order to approach the original objectives of the credit system, an improvement of the learning environment and an examination of standards relating to the calculation and approval of credits.

III. Improving Teaching Methods

It is desirable to effect an improvement in the teaching methods used in institutions of higher education in accordance with their teaching patterns, i.e.:

1) To raise the quality and efficiency level of lectures by widely utilising broadcasting, VTR (video-tape recorders) and other technological devices.
2) In addition, to develop seminars, experiments and small group activities in order to help students understand and apply what they have learned in lectures.
3) As regards athletic and cultural activities on the campus to appoint specialists in the training centres and, by giving guidance and assistance, to enable students to enjoy their student life to the full.

There has been very little research into the teaching methods utilised in higher education and teachers have remained almost indifferent to this subject. Today, however, it has become important for higher education to provide an academic stimulus for and arouse a willingness to learn in students of all sorts of aptitudes and abilities. It is nearly impossible to employ and maintain the large number of capable teachers necessitated by the expansion of higher education and, under these conditions, for the maintenance of a high level of educational quality, one must pay particular attention to the improvement of teaching methods.

The most practical solution in this instance is to analyse each aspect of the teaching/learning process and to try to discover, for each aspect, the most appropriate procedure.

Lectures should aim to convey to students certain carefully selected areas of knowledge. They should aim to give effective instruction to large numbers of students by utilising new educational technology. With the necessary facilities, equipment and careful preparation, the efficacy of teaching may be extended over and above that which can be achieved by giving the same lectures to separate, small groups of students. With this in mind, it is necessary, in co-operation with academic societies and others, to develop research into the content of teaching. Similarly, it is important to obtain specialists in the field of development of instructional techniques and their effects.

In the near future, the use of broadcasting and VTR in lectures may produce effects similar to those obtained by the system under which students can freely choose to listen to the lectures of other schools.

Lectures of this type, however, only provide a one-way flow of information from teachers to students. In the future, emphasis should be placed on providing opportunities for mutual enhancement by personal contacts between students and students, or students and teachers, in seminars and in experiments with small groups. This must involve a considerable increase in the number of teacher aides but should also utilise educational technology.

In order, also, to enhance the educational effect of the lectures and seminars outlined above, it is necessary to expand and improve students study rooms and libraries.

Campus activities of an athletic or cultural nature have so far been left in the hands of voluntary teachers. In future, however, specialists should be trained to give the students leadership with theoretical and practical authority, keeping in close touch with the students' spontaneous activities.

IV. The Availability of Higher Education: the Establishment of a System of Certification

> To enable all people living in our future rapidly changing society to receive education at any time and whenever necessary, higher education should be made available not only to students in specific age groups or with particular educational qualifications but also to the public at large. This means that one must make it easy for all institutions of higher education to accept those requiring re-education and one must also expand educational opportunity by using methods other than those of the traditional credit system of school education. It should also become possible for those acquiring a certain number of approved credits from various categories of institutions to obtain higher education qualifications.
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> As regards existing bachelors', masters' and doctors' degrees, it is necessary to consider the elimination or the simplification of the existing classifications within each degree.

Two factors require consideration in the development of higher education. Firstly, nominal educational qualifications have become accepted in society as highly reliable indications of ability and many have tended to think of school simply as a means of attaining these qualifications. Various problems have arisen because individuals with no real motivation for further education have gone on to a higher level only for the purpose of obtaining these paper qualifications. Secondly, even if the length of school education is extended, it is impossible for a person to learn all that is needed in a society bound to increase in complexity in the future. Thirdly, since the pace of change rapidly makes many forms of ready-made knowledge and skill obsolete, merely extending the period of schooling is ineffective.

The idea that higher education should primarily serve recent secondary school graduates should be revised. Everyone should be able to study whenever motivated. The establishment of a system in which those obtaining credits from various institutions for higher education on different occasions could integrate those credits and receive a socially recognised qualification (such as a graduation certificate or a basic certificate for a particular occupation) is advocated. This would weaken the tendency of inadequate students to go on to higher education and, at the same time, it would make it possible for able persons to receive due treatment.

Institutions of higher education must improve their system so that they can accept those who want re-education. The system must enable members of society in general to obtain higher education without difficulty, perhaps utilising teaching by broadcasting, VTR, correspondence courses, or the provision of schooling during the summers and in the evenings. So far such an opportunity for higher education has not been fully extended to working people. Consideration must be given to the expansion and improvement of higher education by means of evening courses or correspondence courses in order to meet increasing demand for higher education. In relation to this it is desirable to examine, in concrete form, a so-called "University of the Air".

In order to open the doors of higher education internationally, one must take steps to obtain a mutual approval of credits in our own and in foreign countries. It is also important, in order to help foreign students achieve their educational objectives, to improve the teaching of the Japanese language, to make the contents and methods of education more flexible and to improve living conditions.

In future, in line with the diversification and internationalisation of higher education, the explanation of the certification system, and certain other developments, the significance of the classifications in bachelors', masters' and doctors' degrees that are made according to the kinds of faculties or research courses involved should be re-examined. The abolition or the simplification of such classifications may have to be considered.

V. The Functional Separation of the Organisation of Teaching and Research

In order to achieve a balance between a faculty's teaching and research activities in institutions of higher education, and in order to carry out the education of the faculty's students, the structure of the teaching body should be improved. At the same time all teachers should be provided with an environment conducive to research, in accordance with the aims and characteristics of the institutions. For this purpose, in the case of institutions of Categories IV and V (graduate schools and research centres), it is desirable to separate the teaching and research organisations and to develop each of them in a rational fashion. It is necessary to clarify the teachers' responsibilities for every case in practice, and thus to establish co-operation between teaching and research organisations and to keep their respective aims and objectives in mind.

University faculties and departments have so far functioned both as teaching and as research organisations. Generally, however, there has been a tendency for their structure to be divided into small parts according to the teachers' research activities and for each part to become independent. Because of this, relationships and co-operation between teachers have been poor and it has been difficult to develop and administer effectively an appropriate curriculum and to obtain a well-integrated system.

Under the present organisation of faculties and departments, teachers are likely to be interested only in research and to pay the least possible attention to teaching activities. There has been a tendency to select teachers for their research performance rather than for their appropriateness as teachers.

Individual teachers should always be involved in both teaching and research activities. If, however, teaching and research activities are to be developed in a balanced fashion as the goals and nature of higher education require, teaching and research organisations should be separated and personnel administration should be operated in such a manner as to ensure a satisfactory composition of the teaching body. Individual teachers may, however, transfer from one organisation to another after a certain period, and transfers may occur not only between organisations within the same institutions, but also between one institution and another. In any case, this system aims to clarify teachers' daily responsibilities and assist both teaching and research organisations to fulfil their functions properly. It is by no means designed to divide faculty members into teachers or researchers or to provide an education not based on the results of academic research. By separating teaching and research organisations, a satisfactory staff composition and the proper allocation of financial resources will be secured and it will become much easier to manage things rationally.

A more concrete examination of these organisations should be made in each Category of institutions. In relation to this, the Council considers it important that the traditional teaching hierarchy, i.e. professor, assistant professor, lecturer and assistant should be re-examined, with the role of assistants clarified in particular. What is now being done by assistants includes work not only of a research and teaching nature, but also of a clerical and technical nature. The Council wants to consider in the future the exact roles that assistants should play in teaching and research. In doing so the difference between areas of study will be taken into account.

VI. Institutions of Category V (Research Centres)

The "Research Centre" is a teaching and administrative organisation giving research training to those interested in advanced academic research and in obtaining a doctorate. As a rule, it has a faculty composition with some full-time teachers of its own. Therefore, if it is to be established in affiliation to other institutions, some of the institutions of Category IV (graduate schools) or research institutes, where an appropriate research and training organisation exists, should be chosen. Of those admitted to engage in research, those chosen as assistants for the teaching and research activities of the Centre or of other institutions should be given appropriate treatment.

In relation to the establishment of the research centres, the research institutes attached to institutions of higher education, research institutes designed to be used jointly and other academic research institutes are to be examined in the future.

In the Council some were of the opinion that existing graduate schools could not perform their functions properly as they had to share their facilities and teachers with undergraduate departments. Graduate institutions separate from undergraduate departments should, therefore, be established. This means that graduate schools should be set up within institutions which are adequately equipped for research and for giving guidance to research workers. The teaching and administrative structure of the future "Research Centres" should be such that the "Research Centre" can be managed independently. In principle the "Research Centre" should have its own full-time teachers and thus improve its teaching and administrative performances.

VII. The Size of Institutions of Higher Education and the Rationalisation of Administrative and Managerial Organisation

> Institutions of higher education should avoid either becoming too big simply in order to meet managerial needs or trying to become self-sufficient research institutions. They should reach the optimum size that enables them to function coherently as educational institutions. For the benefit of research, exchanges between institutions of higher education and research institutes should be encouraged by developing close relationships and co-operation between them.
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> The administration and management of institutions of higher education should avoid allowing internal organisations to exert sectionalism. Moreover, the integration and efficiency of teaching and research should be protected from various adverse external and internal influences. A structure in which administrative operations can be performed on the institution's initiative and under its self-government should be the objective. In regarding matters affecting the entire campus, such as administrative, financial and personnel problems and students' affairs, more emphasis should be given to the planning, co-ordination and evaluative activities of the central administrative organ, as headed by the president as well as vice-president. It is also necessary to secure the participation of learned persons in appropriate organisations outside higher education and, on relevant problems, one should listen to student opinion in order to improve administration and management further.

For both education and research an institution of higher education such as a "university" must have different kinds of institutes affiliated to it and must cover a number of areas of study. Such an arrangement must be clearly defined and its management appropriately conducted. However, if institutions of higher education seek to encompass all fields of study and research facilities only for the sake of being called "university", they may create unnecessarily complex and gigantic institutions. They may prevent the efficient utilisation of talented people and physical resources and also increase the danger of isolating teaching and research activities from external stimuli. Particularly in the case of private institutions a vicious circle may be created, with increases in the numbers of students obliging management to expand facilities, and then expanded facilities drawing in more students for the needs of management.

The tendency for institutions of higher education to expand in scale and complexity as illustrated above would result in a marked lowering of their educational efficiency. There should, therefore, be some restriction on the size of institutions so that an integrated administration might be established and the administrative efficiency of the campus not be lowered.

So far, under the administrative mechanism in the existing institutions of higher education, there has been a shortage of satisfactorily conducted research and planning activities directed towards the improvement of teaching and research; a lack of self-evaluation after the results of an operation; a lack of securing the implementation of what has been decided as a campus-wide decision. These deficiencies have contributed to the individualism of faculties and departments and have weakened the internal coherence of the institutions, resulting in their inability to defend themselves against influences which might undermine them and actively challenge reform.

In order to improve this state of affairs, it is necessary, as indicated in the report submitted by the Council in April 1969, to effect specific reforms. One must, for example, establish the leadership of the central administration in the institution, clarify the roles to be played by executives like presidents and deans of faculties and by collegiate advisory bodies like senates and faculty boards, rationalise decision-making procedures and secure the co-operation of the institution as a whole. Above all, it is important to enable the central administrative body, headed by the president, to exert sufficient leadership. In doing so it is also necessary to encourage learned personnel outside the institutions to participate in the departments in charge of financial and personnel affairs, so as to prevent institutions becoming introverted and going into decline. At the same time, on the subject of teaching, student guidance, planning and puglic relations, one must listen to the opinions of the students, the consumers of the products of education.

More than a few people think that the participation of outsiders in the administration of universities would threaten their autonomy. The Council, however, believes that this measure would, instead, assist universities in broadening their views and more effectively pursuing their role as social institutions. As the facts in many private universities and in foreign universities also suggest, the participation of outsiders in the administration of institutions contributes to decision-making a knowledge and range of experience not obtainable within the university itself. The university should, therefore, adopt a positive attitude in inviting individuals for this purpose.

As stated in the "Report on Policies to meet the Problems of University Education", which was submitted in April 1969, if student opinions are to be heard on university administration, conditions for student participation appropriate to the status and role of students within the university should be created. This development should be based on the university's desire to discover in the opinions of the younger generation new ideas for the development of education rather than on the students' claim to a right to participate in university management.

VIII. Improving the Employment of Teachers

> Institutions of higher education should secure an adequate number of well-qualified teaching staff. Teachers should be selected in the light of the purpose and nature of the institution and should be suitable for both teaching and research. Institutions of higher education should also improve the administration of their teaching staff. They should, that is, prevent that stagnation in teaching and research which results from insularity; they should obtain the participation of experts from outside the institution in the selection and evaluation of the performance of the teaching staff; they should limit the time that one teacher can remain in one particular position; they should also limit the numbers of teachers graduating from any one university.
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> At the same time, teachers' salaries and other conditions of employment must be extensively improved in order for the institutions of higher education to attract highly qualified staff and to make it easier to exchange personnel with groups outside the institution. The improvement in the salary level should, also, be a device to encourage the teachers to greater efforts for education.

In the administration of the teaching staff many deficiencies have been noted: incentives for good teaching have not been strong since only success in research has mattered in the evaluation of a teacher's ability; both educational and research activities have stagnated as a result of the "in-breeding" of teaching staff because of a lack of personnel mobility; and, in national and public universities, teachers have taken advantage of their security of tenure and tended to protect and promote their own colleagues and to prevent the dismissal even of unqualified staff.

To remedy these deficiencies one must make the teaching staff conscious of them and introduce some institutional checks. The various measures suggested above should be implemented. Institutions like national and public universities, where the tenure of teachers is so secure a system that a third party can hold the faculty accountable should come under scrutiny. The organisational structure of responsibility will otherwise become vague, professional accountability will be forgotten and security of tenure will be abused.

The administration of the teaching staff, as outlined above, cannot be carried out effectively unless the treatment and status of the teachers is made more attractive. Today it is becoming increasingly difficult for an institution of higher education to keep its best staff and to compete against more attractive outside work. It is not easy to attract good people into the university when the salaries and conditions offered are so poor. It is most important to encourage the international exchange of researchers and educators in the future. There are, however, obstacles against the employment of foreign teachers: foreign teachers, however excellent, are not given the full status of teachers in national or public universities and, even when they are offered employment, their salaries are not sufficiently high.

In order to produce teachers of quality for the institutions of higher education, research conditions and salaries should be improved sufficiently to give staff regular opportunities for study both at home and abroad or a period for free research activities.

Training teachers for higher education is going to become an increasingly important problem in the future, and it is necessary, therefore, to consider measures appropriate for dealing with this.

IX. The Reform of the Method of Founding National and Public Universities

Among the institutions of higher education, national and public universities, in particular, are considered to have the character of an administrative governmental agency, in a broad sense, within the present system, and at the same time need special arrangements for their governance. They, therefore, are in a position from which it is easy to come into conflict with the controlling authorities of the national or local government that is the founder of the institution.

> Furthermore, because of the way in which they were founded, such universities tend to rely upon institutional stability and lose their autonomy and sense of responsibility for university governance. The following two reforms could clarify the relationship between the founders and the universities, enabling the latter to administrate for themselves with real autonomy and responsibility. In doing so it is hoped that each university will be reformed in accordance with its purpose and character.
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> 1) The present form of establishment should be abandoned and a new autonomous system set up backed by public funds and with a public character. Under this new system universities will become directly responsible for their own management.
>
> 2) The universities must improve their administration, establish responsible management and clarify their relationship with their founders.

Under the present law, only central and local governments and school corporations are able to establish universities. It has been taken for granted that these founders should manage the universities and finance them. National and public universities, in particular, take on the character of an administrative organisation within the legal system. The Minister of Education is required to take the final responsibility for the administration on behalf of the public, and the heads of local government on behalf of the people in the local districts.

In fact, universities have already assumed considerable control over personnel management and administration in order to secure their academic freedom and their autonomy. This indicates that universities are presumably ready to take responsibility and to act with authority, but the way in which they assume such responsibility is not always clear.

To overcome these deficiencies, some fundamental reform of university administration is required. The first suggestion is indicated in item (1). It is based on the belief that it is not adequate to characterise national and public universities as administrative agencies. In other words, in practice the government or local authorities are not able to take full responsibility for university administration. In addition it is not practical to apply to their personnel and financial management the rules and regulations of the civil service just because they are considered as administrative agencies. This would hinder effective education and kill the universities' readiness for autonomy and responsibility, particularly given their security under the current system. Therefore, item (1) suggests that the universities be transformed into public corporations, manage themselves autonomously and take full administrative responsibility, their only dependency being on a regular provision of public funds. Under this scheme, of course, the authority providing the finance retains the right to determine whether or not a university corporation is worthy of being granted public funds.

Item (2), however, indicates another type of solution. In this type of solution the character of national and public universities, founded by the government or the local authorities as a sort of administrative agency, is in principle sustained, but their administrative structure is to be improved. One step suggested is the establishment of a new administrative organ in each university including suitable appointments from outside the university. This would be given a considerable degree of authority by the founders and assigned the responsibility for the governance of the university. In doing so, at the same time one must distinguish between the rights and responsibilities of the university and of the founders as regards administration, so that the concept of "university autonomy" may not be misconstrued to go beyond what it originally means and may not cause unnecessary confusion.

The kind of system and organisation on which the "new type of corporation" or the "new administrative organ" should be based, and the extent of its rights and responsibilities, should be considered, in detail, at a later stage. In the case of both proposals (1) and (2), it is essential to find directors able to carry their responsibilities through and deal effectively with emergencies, although the autonomy of the universities over the choice of director should be fully respected. At the time of incorporation a wide range of recognition should within certain limits also be given to the autonomy of the university over the management of its finances.

These two reforms do not imply that all national and public universities should be driven in one direction or another. Universities can choose whichever proposal is best suited to them in the light of their purpose and nature. Attention must be paid, however, to the fact that none of the fundamental problems will be solved if the system continues as at present.

In addition, problems are presented by the fact that the Ministry of Education is responsible for both the founding of national schools and the general administration of higher education.

X. Improving Governmental Financing of Higher Education: Students' Fees and the Scholarship System

To develop higher education further, and to maintain and raise the quality of higher education, it would be desirable for the government to give a subsidy to the qualified private institutions for higher education. This should approximate a certain proportion of their expenditure and take account of the institutions' objectives and the nature of their activities. In doing so the government should employ a long-range educational plan, and the institutions should be permitted to use the subsidy flexibly and effectively. The application of this formula to the provision of financial resources for national and public institutions of higher education should also be considered. In this case, however, it should be noticed that the costs, including the tuition fees, borne by the students, should be reasonable, and that any great differences in the finances available should not result from differences between founders or from differences between areas of specialisation.

When the government's measures for dealing with the above problems are discussed, a thorough examination should also be made of the national scholarship system, with the intention of furthering equality of educational opportunity and of encouraging talented individuals to enter those areas of specialisation where they are most needed.

Furthermore, taking into account the social role of the institutions of higher education, it would be desirable for not only the government but also the society in general to give them a considerable degree of financial support.

Following rising costs in education, it has gradually proved difficult in the private universities to meet all necessary expenses out of tuition and other fees borne by the beneficiaries, and donations from the public general. If we ignore this fact, we can expect the quality of education in these institutions to deteriorate and equality of educational opportunity to be restricted. It is very necessary, therefore, to provide substantial public finance for the private institutions, as is seen in other countries.

In giving this governmental aid, however, careful preparation for two factors is necessary. Firstly, a long-term national educational plan must be outlined. Secondly, a sound formula must be found for dispensing financial aid. There are various methods of granting financial aid such as (a) a subsidy for special expenditures, (b) a subsidy amounting to a certain percentage of total expenditure, and (c) a subsidy amounting to a certain percentage of standard unit costs. In the case of giving support for current expenditure it seems wisest to let the universities make use of the regular subsidy under formula (c) provided on a flexible basis in conjunction with their own revenue. This could strengthen university autonomy and administrative responsibility, and would probably promote financial efficiency.

The issue of granting financial aid according to the formulas outlined above is at present a matter concerning the private universities, but the idea also can be applied to the national and public universities where, as stated in the previous section (item (1)), they have been transformed into new types of corporations. When, however, the government provides such aid, it should be on the condition that the government's making of its own decisions should not be infringed and the results of the aid should always be carefully evaluated. As the government aid that private universities receive increases, steps should be taken to make their character more public. Depending on the proportion of financial aid to total educational expenditure, the costs borne by students, including their fees, may fluctuate. One must consider, therefore, in the case of higher education what would be an appropriate amount for the students to pay.

Some think that expenditure on education can be regarded as a kind of social investment and that, therefore, it would be reasonable to determine the proportion to be paid by the students in terms of the returns to themselves and those to society as a whole. This can only be done, however, if the respective proportions in terms of the total economic return of this investment can be calculated. It is, however, very difficult to make such an assessment and it is also clear that investment in education provides more than economic rewards. It is not appropriate, therefore, to decide how much the students should pay entirely in terms of economic factors.

The amount that the students should pay should be decided, within the general framework of educational policy, so that it will not prove too costly for the average person. The amount should be appropriately set within those limits within which the payment can, from the individual point of view, be regarded as an economically profitable investment. The problem of an unsound distribution of human resources will arise, however, if the students' costs vary according to the different areas of specialisation in which different levels of expenditure are required.

That which has just been stated forms a principle common to all universities, regardless of their forms of establishment, and it should be the final aim of governmental aid to realise this principle. At the same time, however, one must remember that there are those who will still find it difficult to obtain higher education, even within this common framework of governmental aid to universities. There will also be a need to attract certain people into specific areas of study. A system for granting scholarships must therefore be developed. In doing so, however, the balance between the financial aid given by the government and the actual costs borne by the students should not be neglected. This is a subject which requires considerable thought.

XI. A National Plan for Co-ordinating Improvements in Higher Education

National financial aid is indispensable for the future, better establishment and governance of institutions of higher education. Therefore, in order to utilise its resources to the full, the government must develop a long-range plan for the growth of higher education as a whole, classifying the types of higher education in relation to the various purposes and characteristics of institutions, proportioning the enrolments in each specialised field and ensuring a fair, regional distribution of institutions. It is necessary to construct such a plan immediately, both for the nation as a whole and for the enrichment of higher education.

Before World War II, most of the institutions of higher education in Japan were established by the national government. Today, however, the proportion of private schools has increased to such an extent that the national institutions can accommodate only about 20 per cent of students. Since the end of World War II, private institutions have played a major part in meeting increased demand for higher education. This is a fact we cannot neglect when we consider plans for future improvements in higher educationl

Nevertheless, until recently, the government has adopted towards private institutions the policy that it should itself approve the establishment of private institutions. The government has only required a certain set of standards to be met and has not been responsible for the maintenance and management of the private institutions. The above policy has provoked many problems. There has been an excessive concentration of private institutions in the big cities, and an ill-balanced growth in the enrolment of students in liberal arts. Sometimes private schools have taken in too many students because of the weakness of their financial basis and their educational conditions have deteriorated.

To solve these problems it is vital to strengthen such government financial aid as was mentioned above, but in doing so the customary, unlimited establishment and enlargement of institutions should be prevented since those institutions are to become recipients of national aid.

Needless to say, in order to improve higher education rationally and effectively, we need an overall plan of the whole system of national, public and private institutions. We then require a public agency which can take this plan, define and rank its priorities on behalf of the nation as a whole, and offer guidance and co-ordination. Such a public agency for making and promoting the national master plan should be able to provide strong leadership for educational reform. The participation of the representatives of the people can be expected to reflect the interests of the nation.

As institutions of higher education increase in number some of them may provoke social problems because they cannot initially solve their own internal conflicts or deal with financial difficulties. It is necessary to consider some systematic, public action to help them solve their difficulties.

XII. Improving the Students' Environment

In order to make higher education fruitful in the best sense of the word, in parallel with all the above-mentioned reforms, an enriched student life should be secured by improving extra-curricular activities and the student environment. We must help students to develop their characters to the fullest extent. In character formation the "dormitory" has been found to be very important, and it is important for the institutions of higher education to improve the dormitories further. Since both now and at a later stage some institutions may be unable to provide "dormitories", some other ways must be found to offer the educational advantages of a "group-life" that the dormitories have offered. In addition to that, some other method must be found by which the great number of students may be given the chance to communicate with other students. Their environment must be improved with adequate provision for food and accommodation. If higher education cannot accomplish this on its own, then the government must consider some appropriate measures.

The original purpose and nature of the dormitory was to provide students with those valuable experiences that can only be gained through living in a group, rather than to give them the living conveniences of food and housing. To fulfil this original goal, however, the dormitory must not only be of a good size and well structured, but its management must be carefully established and co-operative relations between faculties and students maintained. It is most desirable that such ideals should be realised and the efforts result in success.

Recently, changes in the social environment of the educational institutions, increases in the number of students and the expansion of the size of institutions have made it impossible for all institutions of higher education to establish dormitories of this sort. Especially in the case of national universities, the dormitory has been treated as a mere welfare facility, and poor physical conditions offered have persisted. What is worse, self-government activities with ideologies particular to student bodies have been brought into dormitory-life and, as a result, the students are on almost every point, opposed to the present management of the universities. Regrettably, therefore, many dormitories are no longer educationally effective, but provide, instead, a base for various conflicts.

Not only will it be difficult to adjust the above described situation and restore dormitory life to its original state, but it will also be problematic to pursue the pre-war ideals of dormitory life since today's dormitories have to deal with so many students. For future ordinary universities, therefore, it is necessary to analyse the functions which the old dormitory life performed and try to fulfil them in another way. Students, for example, in well-planned "camping seminars", could gain valuable experiences that can only be obtained from living together with others. It still remains, however, to provide students with good facilities for extra-curricular activities and with improved food and accommodation. It can easily be envisaged that universities cannot accomplish this alone and the government should consider helping them.

XIII. Improving the Selection Procedure for Students

> Because the student selection system affects the whole of education in Japan, we must try, from now on, to improve that system. The aims of improvements should be that in the selection of students for higher education, the records of those who, at the secondary level, studied the planned curriculum conscientiously, should be fairly evaluated and that each student should be able to be admitted into a university suited to his individual abilities without special preparation for the examination. Improvement of the selection procedure must be based on the following principles.
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> 1) School records showing, in a fair fashion, what students have accomplished in senior high school, should be used as a basic material for selection.
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> 2) A common test should be developed and utilised as a means of adjusting the different standards of evaluation among upper high schools.
>
> 3) When a university wishes, it may initiate a test to examine certain abilities needed for a specific field, or require the writing of essays as well as conducting personal interviews. Then the results of all these should be used as materials for making a comprehensive assessment of a student.

The student selection system has provoked many problems but these have their main roots not only in current social and economic conditions but also in the structure of higher education itself in Japan. Too many applicants, for example, apply to a few select universities and these universities are forced into setting entrance examinations in order to distinguish between the applicants who have much similar abilities. To solve this problem, we must develop a system where considerable numbers of universities distinguished in different fields of study co-exist together. Enrolment in a particular university immediately after finishing high school should not limit or adversely affect a student's future to pursue a further advanced study. Universities should also pay more attention to the grades which students obtain after their admission, and break the socially easy-going attitude of being satisfied with succeeding in the entrance examination alone.

Firstly, for the improvement of selection, professional and technical development must be sought so that the evaluation of achievement in high school may become as objective and as fair as possible. High school teachers should offer sound guidance for a student's future, and universities should respect the records which high schools submit.

There is, however, a problem which results from the different academic levels of different high schools. To solve this a common test must be developed that can be used in co-operation with universities and high schools. The test should assess the abilities and aptitudes of students rather than the students' achievement in high school. Specialists in this field should be brought together and an organisation created to establish adequate standards of selection based on the results of the above-mentioned sources or a "follow-up" inspection of the records after entrance to the university.

In improving student selection along the lines suggested above, relevant research should be encouraged, and high schools and universities should co-operate of their own accord in order to give effect to these reforms. The government should provide all the assistance required and, where necessary, give a strong lead.

In addition, we should remember that for private universities the present selection procedure is closely related to financial problems, and that due consideration must be given to these before the selection procedure can be resolved.

Annex III

RECENT STATISTICS ON EDUCATION IN JAPAN

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Table 1

NUMBERS OF SCHOOLS, TEACHERS AND PUPILS, BY SCHOOL LEVEL

(As of May 1, 1969)

		Number of Schools	Number of Teachers					Number of Pupils		
			Grand Total	Full-time			Part-time	Total	Male	Female
				Total	Male	Female				
Grand Total		33,184	912,914	863,225	525,541	337,684	49,689	20,207,394	10,338,341	9,869,053
Public	National	228	5,416	4,454	3,523	931	962	102,071	55,809	46,262
	Local	44,189	776,833	752,856	478,376	274,480	23,977	17,427,911	9,027,024	8,400,887
Private		8,767	130,665	105,915	43,642	62,273	24,750	2,677,412	1,255,508	1,421,904
Kindergartens		10,418	69,052	62,439	4,024	58,415	6,613	1,551,017	793,379	757,638
Public	National	43	230	168	4	164	62	4,114	2,081	2,033
	Local	3,744	17,221	13,469	178	13,291	3,752	374,663	190,553	184,110
Private		6,631	51,601	48,802	3,842	44,960	2,799	1,172,240	600,745	571,495
Elementary Schools		25,014	362,987	361,148	179,621	181,527	1,839	9,403,221	4,805,891	4,597,330
Public	National	71	1,838	1,736	1,424	312	102	46,778	24,123	22,655
	Local	24,782	358,374	357,065	177,247	179,818	1,309	9,301,853	4,761,552	4,540,301
Private		161	2,775	2,347	950	1,397	428	54,590	20,216	34,374
Lower Secondary Schools		11,278	237,686	227,405	168,043	59,362	10,481	4,865,206	2,485,719	2,379,487
Public	National	76	1,952	1,626	1,348	278	326	38,253	20,791	17,462
	Local	10,610	223,101	219,273	163,037	56,236	3,828	4,685,083	2,411,823	2,273,260
Private		592	12,833	6,506	3,658	2,848	6,327	141,870	53,105	88,765
Full-time Upper Secondary Schools		4,167	203,277	179,137	148,228	30,909	24,140	3,931,918	1,989,876	1,942,042
Public	National	24	952	583	530	53	369	10,895	7,517	3,378
	Local	2,945	140,662	131,114	113,058	18,056	9,548	2,637,113	1,413,101	1,224,012
Private		1,198	61,663	47,440	34,640	12,800	14,223	1,283,910	569,258	714,652
Part-time Upper Secondary Schools		1,900	27,769	21,667	18,935	2,732	6,102	405,854	235,329	170,525
Public	National	0	51	0	0	0	51	285	274	11
	Local	1,729	26,075	20,976	18,434	2,542	5,099	381,482	223,273	158,209
Private		171	1,643	691	501	190	952	24,087	11,782	12,305
Special Schools		407	11,943	11,429	6,690	4,739	514	50,183	28,152	22,031
Public	National	14	393	341	217	124	52	1,746	1,023	723
	Local	379	11,400	10,959	6,422	4,537	441	47,722	26,727	20,995
Private		14	150	129	51	78	21	715	402	313

Note: Numbers of upper secondary students include those in advanced and short-term courses.

Table 2

NUMBER OF UPPER SECONDARY SCHOOL PUPILS, BY COURSE*

(As of May 1, 1968)

	All Upper Secondary Schools		
	Total	Male	Female
Total	4,511,669	2,336,621	2,175,048
General	2,657,553	1,269,357	1,388,196
Agriculture	240,663	175,028	65,635
Fishery	19,970	18,896	1,074
Technical	575,637	562,835	12,801
Commercial	757,995	306,867	451,128
Domestic Arts	238,843	246	238,597
Others	21,008	3,391	17,617

* Excludes pupils in advanced courses and short-term courses.

Table 3

GRADUATES OF LOWER AND UPPER SECONDARY SCHOOLS
EMPLOYMENT STATUS OF GRADUATES IN 1967-68

(As of March, 1969)

	Lower Secondary Schools	Full-time Upper Secondary Schools	Part-time Upper Secondary Schools
Total	1,737,463	1,389,950	107,022
Male	886,608	704,114	64,254
Female	850,855	685,836	42,768
Students	1,319,038	331,770	2,116
Male	672,282	175,715	1,236
Female	646,756	156,055	880
Employed Persons	264,263	774,256	94,325
Male	137,337	368,306	58,269
Female	126,926	405,950	36,056
Employed Persons Attending Schools	60,044	9,314	4,454
Male	30,066	5,556	2,888
Female	29,938	3,758	1,566
Unemployed Persons	91,368	267,488	5,533
Male	45,385	151,082	1,631
Female	45,983	116,406	3,902
Others	2,790	7,122	594
Male	1,538	3,455	230
Female	1,252	3,667	364

Table 4

GRADUATES OF LOWER AND UPPER SECONDARY SCHOOLS
DISTRIBUTION OF GRADUATES IN 1967-68 BY INDUSTRY

(As of March, 1969)

Industry	Lower Secondary Schools			Upper Secondary Schools		
	Total	Male	Female	Total	Male	Female
Total	324,267	167,403	156,864	882,349	435,019	447,330
Agriculture	15,402	10,229	5,173	36,522	28,784	7,738
Forestry & Hunting	342	311	31	916	665	251
Fishery & Marine Products Industry	4,194	3,862	332	2,388	1,851	537
Mining	577	548	29	1,968	1,101	867
Construction	29,058	28,733	285	34,016	27,469	6,547
Manufacturing	188,256	86,567	101,689	319,802	185,537	134,265
Wholesale & Retail Trade	21,228	10,262	10,966	235,301	82,256	153,045
Finance & Insurance	184	35	149	59,609	10,180	49,429
Real Estate	24	8	16	1,484	562	922
Transport & Communication	8,633	5,399	3,234	42,201	27,532	14,669
Electricity, Gas & Water	4,559	3,623	936	11,163	7,177	3,986
Services	40,442	11,755	28,687	74,989	22,467	52,522
Public Services	926	378	548	43,147	30,803	12,344
Others	10,442	5,653	4,789	18,843	8,635	10,208

Table 5

MISCELLANEOUS SCHOOLS

(As of May 1, 1968)

	Total	Public		Private
		National	Local	
Number of Schools	7,991	70	236	77,685
Number of Teachers	98,685	2,685	5,924	90,076
Male	53,574	2,020	3,755	47,799
Female	45,111	665	2,169	42,277
Number of Students	1,470,869	4,302	19,856	1,446,711
Male	439,326	658	3,706	434,962
Female	1,031,543	3,644	16,150	1,011,749
Number of Students by Course				
Dressmaking & Handicrafts	527,155	-	5,441	521,714
Home Management & Cooking	102,914	-	1,263	101,651
Book-keeping & Accounting	123,695	-	193	123,502
Commerce	12,121	-	415	11,706
Foreign Language	71,142	-	-	71,142
Engineering	37,727	-	373	37,354
Car Maintenance	132,175	-	2,580	129,595
Preparatory Schools for Entrance Examination	128,451	-	-	128,451
Radio, TV & Communication	8,809	-	-	8,809
Typing & Shorthand	26,831	-	-	26,831
Hairdressing	42,180	-	694	41,486
Nursing, Radiography, Dental Technology, etc.	72,815	4,302	6,310	62,203
General Education	74,176	-	111	74,065
Music, Arts, Dance & Drama	14,575	-	39	14,536
Training of Kindergarten Teachers	14,507	-	908	13,599
Agriculture	1,215	-	283	932
Schools for Foreigners	40,971	-	-	40,971
Tea Ceremony, Flower Arrangement & Calligraphy	15,153	-	204	14,949
Religion	1,323	-	-	1,323
Law	1,491	-	-	1,491
Hat Manufacturing	782	-	-	782
Others	20,661	-	1,042	19,619

Table 6

CORRESPONDENCE EDUCATION

(As of May 1, 1968)

	Upper Secondary School	Institutions of Higher Education
Number of Schools	76	16
Local	64	-
Private	12	16
Number of Students	146,719	121,839
Male	65,215	84,423
Female	81,504	37,416
Number of Teachers	1,891	.....*
Full-time	1,301	.....*
Part-time	590	.....*

* Not available.

Table 7

NUMBERS OF INSTITUTIONS, TEACHERS AND STUDENTS AT THE HIGHER EDUCATION LEVEL

(As of May 1, 1969)

		Number of Institutions	Number of Teachers					Number of Students*		
			Grand Total	Full-time			Part-time	Total	Male	Female
				Total	Male	Female				
Total		912	150,398	93,232	80,973	12,259	57,166	1,659,826	1,198,624	461,202
Public	National	146	51,236	39,032	37,388	1,644	12,204	342,713	285,317	57,396
	Local	81	10,321	6,811	5,977	834	3,510	70,307	46,652	23,655
Private		685	88,841	47,389	37,608	9,781	41,452	1,246,806	866,655	380,151
Universities		379 (173)	113,546	74,706	68,506	6,200	38,840	1,354,827	1,110,859	243,968
Public	National	75 (57)	46,113	36,374	34,753	1,621	9,739	302,022	246,351	55,671
	Local	34 (17)	7,467	5,272	4,796	476	2,195	50,078	37,993	12,085
Private		270 (99)	59,966	33,060	28,957	4,103	26,906	1,002,727	826,515	176,212
Junior Colleges		473	32,062	15,445	9,401	6,044	16,617	263,362	46,761	216,601
Public	National	22	1,400	357	345	12	1,043	9,768	8,620	1,148
	Local	43	2,408	1,222	867	355	1,186	16,274	4,751	11,523
Private		408	28,254	13,866	8,189	5,677	14,388	237,320	33,390	203,930
Technical Colleges		60	4,790	3,081	3,066	15	1,709	41,637	41,004	633
Public	National	49	3,723	2,301	2,290	11	1,422	30,923	30,346	577
	Local	4	446	317	314	3	129	3,955	3,908	47
Private		7	621	463	462	1	158	6,759	6,750	9

* Includes students in graduate schools and in advanced or short-term courses, but excludes those in correspondence courses.

Note: The figures in parentheses represent number of universities having graduate schools.

Table 8

NUMBER OF UNIVERSITY STUDENTS, BY FACULTY*

(As of May 1, 1968)

	Total			Public				Private	
				National		Local			
	Total	Male	Female	Male	Female	Male	Female	Male	Female
Total	1,211,068	991,126	219,942	207,906	50,045	32,974	10,869	750,246	159,028
Humanities	160,957	75,921	85,036	10,291	5,475	4,734	4,849	60,896	74,712
Social Sciences	511,614	487,444	24,170	34,852	835	14,479	886	438,113	22,449
Pure Sciences	38,414	33,115	5,299	13,944	2,426	1,148	180	18,023	2,693
Engineering	242,816	241,546	1,270	66,588	377	4,791	20	170,167	873
Agriculture	45,398	43,185	2,213	22,055	1,173	1,441	47	19,689	993
Medicine, Dentistry, Pharmacy & Nursing	46,418	28,977	17,441	10,073	2,943	3,457	988	15,447	13,510
Mercantile Marine	1,652	1,652	-	1,652	-	-	-	-	-
Home Economics	21,324	68	21,256	-	656	27	2,429	41	18,171
Education	85,717	43,331	42,386	30,893	33,839	523	686	11,915	7,861
Fine Arts	25,170	9,414	15,756	990	817	893	606	7,531	14,333
Others	31,588	26,473	5,115	16,568	1,504	1,481	178	8,424	3,433

* Undergraduates only.

Table 9

NUMBER OF JUNIOR COLLEGE STUDENTS, BY DEPARTMENT*

(As of May 1, 1968)

	Total			Public				Private	
				National		Local			
	Total	Male	Female	Male	Female	Male	Female	Male	Female
Total	251,637	45,287	206,350	8,068	959	4,654	10,991	32,565	194,400
Humanities	46,669	1,934	44,735	19	204	17	1,964	1,898	42,567
Social Sciences	29,628	17,760	11,868	3,214	450	1,840	2,283	12,706	9,135
Pure Sciences	152	15	137	-	-	7	71	8	66
Engineering	21,380	20,707	673	4,750	93	1,920	89	14,037	491
Agriculture	3,343	2,896	447	-	-	802	106	2,094	341
Nursing, etc.	4,743	596	4,147	85	212	-	530	511	3,405
Home Economics	91,600	186	91,414	-	-	5	4,170	181	87,244
Education	38,481	317	38,164	-	-	-	1,394	317	36,770
Fine Arts	10,894	799	10,095	-	-	63	384	763	9,711
Others	4,747	77	4,670	-	-	-	-	77	4,670

* Regular courses only.

Table 10

GRADUATES OF JUNIOR COLLEGES AND UNIVERSITIES
EMPLOYMENT STATUS OF GRADUATES IN 1967-1968

(As of March, 1968)

	Junior Colleges	Universities
Total	100,166	194,628
Male	15,605	161,350
Female	84,561	33,278
Students	3,675	10,371
Male	1,573	9,357
Female	2,102	1,014
Employed Persons	63,074	158,873
Male	12,574	137,586
Female	50,500	21,287
Employed Persons Attending Schools	488	84
Male	357	67
Female	131	17
Interns	-	2,723
Male	-	2,431
Female	-	292
Unemployed Persons	27,145	11,577
Male	521	3,471
Female	26,624	8,106
Others	5,784	11,000
Male	580	8,438
Female	5,204	2,562

Table 11

GRADUATES OF JUNIOR COLLEGES AND UNIVERSITIES
DISTRIBUTION OF GRADUATES IN 1967-68 BY INDUSTRY

(As of March, 1968)

	Junior Colleges			Universities		
	Total	Male	Female	Total	Male	Female
Total	63,562	12,931	50,631	158,957	137,653	21,304
Agriculture	499	402	97	550	538	12
Forestry & Hunting	48	11	37	179	176	3
Fishery & Marine Products Industry	113	17	96	267	248	19
Mining	105	37	68	296	290	6
Construction	1,570	693	877	8,752	8,521	231
Manufacturing	15,288	4,413	10,875	52,612	49,643	2,969
Wholesale & Retail Trade	8,615	2,339	6,276	28,921	27,289	1,632
Finance & Insurance	4,832	577	4,255	9,983	9,742	241
Real Estate	201	25	176	879	827	52
Transport & Communications	1,902	659	1,243	5,730	5,227	503
Electricity, Gas & Water	473	144	329	808	768	40
Services	23,573	1,593	21,980	33,287	19,351	13,936
Public Services	3,579	1,439	2,140	8,803	8,153	650
Others	2,764	582	2,182	7,890	6,880	1,010

Table 12

NUMBER OF STUDENTS WHO RECEIVED LOANS FROM THE JAPAN SCHOLARSHIP FOUNDATION

(As of March, 1968)

	Number of Student Borrowers	Student Borrowers as a Percent of Total Students
Upper Secondary Schools	107,500	2.3
Universities	180,894	12.4
Teacher Training Faculty	28,835	47.5
National Training Institute for Technical Teachers	285	60.0
Graduate Schools	16,126	49.2
Technical Colleges	9,101	23.8

Table 13

APPLICANTS FOR INSTITUTIONS OF HIGHER EDUCATION

(As of May 1, 1968)

	Applicants for Admission[1]			Successful Applicants		
	Total	Male	Female	Total	Male	Female
Graduate Schools (2)	21,950	19,950	2,000	10,974	9,883	1,091
Public	15,254	14,020	1,234	7,203	6,613	590
National	13,714	12,667	1,047	6,636	6,108	528
Local	1,540	1,353	187	567	505	62
Private	6,696	5,930	766	3,771	3,270	501
Universities	1,896,060	1,620,073	275,987	325,632	265,113	60,519
Public	536,257	445,444	90,813	75,975	59,928	16,047
National	418,138	351,945	66,193	65,074	51,849	13,225
Local	118,119	93,499	24,620	10,901	8,079	2,822
Private	1,359,803	1,174,629	185,174	249,657	205,185	44,472
Junior Colleges	260,630	41,503	219,127	127,365	20,928	106,437
Public	41,081	13,175	27,906	10,559	4,615	5,944
National	7,754	6,028	1,726	3,100	2,698	402
Local	33,327	7,147	26,180	7,459	1,917	5,542
Private	219,549	28,328	191,221	116,806	16,313	100,493
Technical Colleges	35,754	34,963	791	9,363	9,238	125
Public	33,050	32,264	786	7,656	7,535	121
National	30,200	29,438	762	6,851	6,736	115
Local	2,850	2,826	24	805	799	6
Private	2,704	2,699	5	1,707	1,703	4

1) Individuals who applied for admission into two institutions counted as two applicants.

2) Master courses only.

Table 14

SOCIAL EDUCATION FACILITIES

(As of May, 1967)

	Total	National	Prefectural	Local
Citizens' Public Halls	17,247	-	3	17,244
Libraries	887	5	84	798
Museums	198	27	24	147
Physical Facilities	2,292	3	93	2,196
Youth Centres	375	4	64	307

Table 15

YOUTH CLASSES AND SCHOOLS FOR YOUNG WORKERS

(As of May, 1967)

	Number of Establishments	Number of Students		
		Total	Male	Female
Youth classes	6,132	282,898	146,235	136,663
Schools for Young Workers	48	13,380	4,293	9,087

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